TESTING THE RELIABILITY
Of Expert Opinions in Texas:

Guidelines from

Kelly, du Pont/Daubert

and their progeny

A Text by Marcel B. Matley
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Dedicated to my Parents,
now deceased.
May their souls rest in peace with God.

TESTING THE RELIABILITY OF EXPERT OPINIONS IN TEXAS: GUIDELINES FROM KELLY, du PONT/DAUBERT AND THEIR PROGENY

A paper by Marcel B. Matley, assisted by Linda Collins James

TABLE OF CONTENTS

Section I. Introduction. . . . 1
A. Statement of Purpose. . . . 1
B. Disclaimer. . . . 3
C. Handwriting Expertise as an Illustrative Expertise. . . . 4

Section II. Expert Qualifications. . . . 5
A. The Rule. . . . 5
B. Presenting Your Expert's Qualifications. . . . 5
1. Knowledge. . . . 6
2. Skill. . . . 7
3. Experience. . . . 7
4. Training. . . . 8
5. Education. . . . 9
6. Concluding Remarks. . . . 9
C. Challenging the Opposing Expert's Qualifications. . . . 10
1. Knowledge. . . . 11
2. Skill. . . . 12
3. Experience. . . . 12
4. Training. . . . 13
5. Education. . . . 13
6. Credentials. . . . 14
7. Concluding Remarks. . . . 16

Section III. The Opinion: the Expert's Conclusions. . . . 19
A. Content of the Conclusion. . . . 20
1. Content per Se Not Considered. . . . 20
2. Legal Limits to Expert Opinion. . . . 20
(a) *Questions of Law.* . . . 20
(b) *Amorphous Opinions.* . . . 21
(c) *Uselessness.* . . . 22
(d) *Contrary to Applicable Legal Rule.* . . . 22
(e) *Testimony Regarding Other Witnesses.* . . . 24
3. Probative Value Not Outweighed by Other Factors. . . . 24
B. Objectivity of the Conclusion. . . . 25
2. Litigation-oriented Expert. . . . 26
(a) *Police Labs and Their Reports.* . . . 26
(b) *Do the Bases for Opinion Have Any Non-litigious Uses?* . . . 27
(c) *Theory Formed for Litigation.* . . . 27
3. Bias Shown by Selecting Only Supportive Research/data. . . . 27
4. Bias Shown by Ignoring Non-supportive Research or Data. . . . 28

5. Assuring Your Expert's Objectivity. . . . 28
C. Comprehensiveness of the Opinion: Causality. . . . 28
1. Were All Reasonably Possible Causes Considered? . . . 29
2. When Expert Testimony as to Causality Is Required. . . . 32
3. Requirements for a Reasonable Probability. . . . 33
4. Logic. . . . 35
(a) *Syllogism.* . . . 35
(b) *Inferences.* . . . 35
(c) *Sophisms.* . . . 36
(d) *Some Common Logical Flaws.* . . . 37
(e) *a Logical Conclusion.* . . . 37
5. Competing Scenarios. . . . 37
6. All Potential Effects of the Cause. . . . 39

Section IV. Factual Bases Within the Case. . . . 40
A. Explanation of What Is Meant by Title of Section. . . . 40
B. Assumed: Hypothesis. Particularly the Litigant's Theory or Allegation. . . . 41
C. Either Stipulated or Not Disputed. . . . 42
D. Evidence Offered by the Side Retaining the Expert. . . . 42
E. Evidence Offered by the Opposing Side. . . . 43
F. Expert's Own Observations. . . . 44

Section V. Factual Bases Outside the Case. . . . 46
A. Explanation of What Is Meant by Section Title. . . . 46
B. Extraneous Controls. . . . 46
C. Controls for Comparison in Behavioral Expertise. . . . 47
D. Hearsay Reasonably and Customarily Relied on by Experts in the Particular Field. . . . 48
1. Reports of Other Experts. . . . 48
2. Research Results. . . . 49
3. Professional Literature. . . . 49
4. Expert's Interview of Persons in the Case. . . . 50
5. Expert's Interview of Persons Not in the Case. . . . 51
D. Public and Other Records. . . . 51

Section VI. Theoretical Bases of the Opinion. . . . 53
A. Subject to Judicial Notice. . . . 53
1. In General and Intoxilyzer Test. . . . 53
2. Handwriting Expertise. . . . 54
3. Fingerprints. . . . 54
4. Other Disciplines. . . . 54
B. Law of Physics, Etc. . . . 55
C. Common Knowledge. . . . 55
D. Publications: Authorities in the Particular Discipline. . . . 56
E. Publications: Authorities from Other Disciplines. . . . 57
F. The Expert must Be Conversant with These Sources. . . . 58
G. The Expert must Recognize Limitations as to What Can Be Done. . . . 60

H. The Primary Challenge to Make. 60
I. How Can One Check out the Opposing Expert's Assertions? 61
J. Making One's Own Expert Appear More Conversant That the Opposing Expert. 61
K. Non-litigation Use. 61
L. Summary Considerations. 62

Section VII. Methodological Bases. 63
A. Sources of the Expert's Methods. 63
1. Who Designed It? 63
2. When Was it Designed? 64
3. Was it Published or Peer Reviewed? 64
4. Where Was it Tested for Reliability? 65
5. Rate-of-error and Competency Testing. 66
6. Consistency in Applying the Expert Method. 67
B. Recognition Within the Particular Discipline. 68
1. Who Else Uses It? 68
2. Who Uses Alternative Methods? 68
3. Adopted by Any Training Courses, Schools, Etc.? 69
C. Inquiry into the Method. 69
1. Did the Expert Take Full Notes of the Entire Process? 69
2. What Are the Precise Steps Taken, in the Order in Which They Were Taken? 69
3. What Tools or Equipment Were Used and How Used? 70
4. What Time Was Required to Perform the Method? 70
5. Were There Systematic, Thorough Observations? 70
6. Reliability Check or Retesting Performed in Preparation for Trial. 71
7. Reliability Testing Outside of the Litigational Context. 71
D. Is the Method Recorded Anywhere? 71
1. Where it Is Recorded? 71
2. Did the Expert Refer to the Written Method as He Went along? 71

Section VIII. Miscellaneous Inquiries. 72
A. Speculative Opinions. 72
B. Specific Fit to Issues in the Instant Case. 73
1. Specificity of Qualifications. 73
2. Specificity of the Opinion. 74
3. Specificity of Knowledge. 74
C. Sufficiency of Evidence. 75
D. Demonstrative Exhibits. 75
E. Financial Interests of Expert. 76
F. Uncontradicted Expert Testimony. 76
G. Bolstering. 77
H. Conclusory Opinions. 77
I. Negligence and Standards of Care. 78
J. Where Error in Admitting Expert Is Harmless. 79
K. Reasonable Reliance. 79
L. Expert Reports: Standards. 79

M. Summary Remarks. 80

Section IX. Illustrative Answers. 81
A. Preparation with Your Expert. 81
1. Preliminaries. 81
2. What Your Expert Should Provide. 81
B. Questions with Illustrative Answers from Handwriting Expertise. 82
1. Questions to Be Repeated. 82
2. The Five Factors Qualifying the Expert. 82
(a) *Knowledge*. 82
(b) *Skill*. 83
(c) *Experience*. 83
(d) *Training*. 83
(e) *Education*. 83
(f) *a Final Word on Thoroughness*. 84
3. Reliability of the Expert Opinion. 84
(a) *Objectivity of the Expert's Conclusions*. 84
(b) *Comprehensiveness of the Opinion: Causality*. 84
4. Factual Bases in the Case. 85
5. Factual Bases Outside the Case. 85
(a) *Control Materials, Such as Handwriting Exemplars*. 85
(b) *the Professional Literature*. 86
(c) *the Expert's Interview of Persons*. 86
6. Theoretical Bases of the Opinion. 87
(a) *Subject to Judicial Notice*. 87
(b) *Laws of Physics, Etc*. 87
(c) *Common Knowledge*. 87
(d) *Authorities in the Particular Discipline*. 87
(e) *Authorities from Other Disciplines*. 88
(f) *Expert must Be Conversant with These Sources*. 88
(g) *the Expert must Recognize Limitations as to What Can Be Done*. 88
(h) *Non-litigation Use of the Expertise*. 89
7. Methodological Bases. 89
(a) *Where Was it Published?* 89
(b) *Where Was it Tested for Reliability?* 90
(c) *Inquiry into the Method*. 91
(d) *Probability in Handwriting Opinions*. 91
C. Mounting a Counter-attack. 92
(a) *Is Their Expert Qualified to Criticize Yours?* 92
(b) *Can Opposing Counsel's Legal Theory Work Against His Expert?* 93
(c) *Is There a Legal Rule Barring Opponent's Proposed* in Limine *Evidence?* 93
(d) *a Final Thought*. 93

Section X. Concluding Remarks. 95

Section XI. Case Citations and Bibliographic Citations with Remarks. 96
A. Case Citations. 96
B. Index to Cases by Expertise or Topic. 134
C. Other References. 139

SECTION I. INTRODUCTION.
A. STATEMENT OF PURPOSE.

The purpose of this work is to provide guidance on how to cover, as thoroughly as time and resources permit, the factors supporting admissibility of one's expert. In this way, one is prepared for potential attacks against one's expert, even if they are unknown or camouflaged. Leave nothing to chance; however, if one must leave something to chance, one is aware of it and has made an intelligent tactical decision in the circumstances.

The second purpose is to present a systematic and thorough guideline for examining an opposing expert regarding reliability of his opinion as practical. Whether any challenge is used in deposition, in a *in limine* hearing, or at trial is a legal and tactical decision which only the trial attorney can make within the context of the case. We provide a full arsenal. The attorney must choose which weapons to use and when and how to use them.

These purposes are accomplished through an extensive survey of pertinent rulings from cases following *Daubert v Merrell Dow Pharmaceuticals, Inc.,* 125 L.Ed.2d 469, 113 S.Ct. 2786 (1993), *E.I. du Pont de Nemours & Co., Inc., v Robinson*, 923 S.W.2d 549 (TX 1995) (referred to both as *du Pont* and as *Robinson*), and *Kelly v State*, 824 S.W.2d 568 (Ct Cr Ap TX 1992), supplemented by selected older cases which some of these may rely on or reference. There also is an occasional illustrative case which does not belong to the direct family tree of *Kelly/Daubert/du Pont*. Since this paper is specifically on Texas practice, when we say "Supreme Court" by itself, we mean the Texas Supreme Court.

No distinction is made between expert testimony which is formally scientific and that which is not, or based solely in some specialized experience. Courts have at times so distinguished, as in *Dico Tire, Inc., v Cisneros*, 953 S.W.2d 776 (Ct Ap TX 1997), which states at page 786: "[N]ot every testifying expert is providing scientific evidence.... Some expert testimony is derived from specialized knowledge or technical experience. Tex. R. Civ. Evid. 702. We conclude that Harm was not providing scientific evidence; his testimony was derived from specialized knowledge and technical expertise. We, therefore, rely on *Schaefer v. Texas Employers' Ins. Ass'n*, 612 S. W. 2d 199 (Tex. 1980), for the appropriate test." However, the Court immediately opens the next phase of its discussion with: "In order to constitute proof, Harm's testimony had to establish 'reasonable probability' of a causal connection between the tire and the injury." This makes implicit what *Kumho Tire Co., Ltd., et al., v Carmichael, et al*., 526 US —, 143 L.Ed.2d 238, 119 S.Ct. 1167 (1999), would later make explicit, that all expert testimony must be proved reliable by some reasonable set of criteria before it is admissible.

A more direct statement from *Dico Tire* is that of *Fowler v State*, 958 S.W.2d 853 (Ct Ap TX Waco 1998). Beginning at page 862 there is an extensive discussion of "**SCIENTIFIC KNOWLEDGE VS. SPECIALIZED KNOWLEDGE**" and whether the latter is subject to the criteria which *Kelly v State* established for novel scientific evidence, criteria which had already been extended to all scientific evidence, novel or not. The extended discussion is summarized in Headnote 17, which reads: "*Kelly* test for admission of expert testimony based on scientific knowledge, imposing reliability requirement, applies to 'specialized knowledge,' specifically in field of psychology, despite claim that psychological sciences are not susceptible to same scrutiny as 'hard sciences,' and thus, fall outside category of 'scientific knowledge'; fact that it may be more difficult to assess reliability of testimony regarding 'soft sciences' does not justify eliminating reliability requirement, and if at least some of *Kelly* factors cannot be satisfied, then testimony should be excluded." In this case none of the *Kelly* factors were satisfied.

An earlier case, *Frohne v State*, 928 S.W.2d 570 (Ct Ap TX Houston 1996), said an expert on

sexually abused children need not satisfy the *Kelly* test. In *Frohne* appellant was convicted of sexually abusing a child. He contended that he had inadequate assistance of counsel in that his defense counsel failed to challenge the state expert's qualifications and theory. Addressing defendant's assertion that guidelines of *Daubert* and *Kelly* were erroneously not applied to the expert testimony, at page 574 the Court of Appeals says: "Ginsberg's testimony, however, was not based on a novel scientific test or theory, but on her consultations with L.D. and her 20 years of experience in working with sexually abused children." Later cases such as *Fowler* hold *Kelly* and *du Pont* applicable to all experts and expert evidence, novel or not.

In the child sex abuse case of *Perez v State*, 25 S.W.3d 830 (Ct Ap TX Houston 2000), the State's expert was found erroneously admitted because she testified to a psychiatrist's theory where only one *Kelly* factor could be satisfied. She was outside her proper expertise. The case report explicitly discusses each factor in turn. For several it is said the record is silent on the factor, so the Court concluded that this factor weighed against admissibility. This suggests it is well for a presenting party to cover systematically and explicitly each factor in turn. In Section IX we illustrate how that may be done.

Nenno v State, 970 S.W.2d 549 (Ct Cr Ap TX 1998), ruled that the *Daubert* gatekeeping function applied to all expert testimony. However, *Nenno* states that the appropriate questions for the "nonscientific" are those given at page 561:

1. whether the field of expertise is a legitimate one;
2. whether the subject matter of the expert's testimony is within the scope of that field; and
3. whether the expert's testimony properly relies upon and/or utilizes the principles involved in the field.

An example of how *Nenno* factors can be satisfied in a "soft" science, *Muhammad v State*, 46 S.W.3d 493 (Ap El Paso TX 2001), describes at page 506 how a forensic psychologist met them all and so should not have been excluded:

- "[S]tudy of human psyche...is certainly a legitimate field of expertise subject to well-recognized norms and standards."
- Testimony based on three psychological tests "was clearly within the scope of that field."
- It "properly relied on established psychological principles."

Nevertheless, require your expert to meet the highest standards, and, barring any sustained objection, take the opposing expert through all the scientific questions anyway. The opposing attorney may not be trying to hide behind a nonscientific screen, while you might be able to show the expert is anti-scientific in some way, not merely nonscientific. Besides, the three questions above beg for most questions considered appropriate for experts in the "hard" sciences. For example, authoritative publications, general peer acceptance if not review, some informal testing and an idea of how wrong it might be, if not a rate of error, are useful, if not essential, to proving the scope of a nonscientific field and what its principles are. Otherwise, one is back to the *ipse dixit* of the expert.

Lastly, we do not separate the issue of admissibility in civil versus criminal cases. *Roise v State*, 7 S.W.3d 225 (TX Ap Austin 1999), states the rule and gives the rationale for it in footnote 3 at page 234: "Rule 702 is equally applicable to both Texas civil and criminal cases and is worded the same as Federal Rule of Evidence 702 (except for a comma). Thus, in a Texas criminal case, Texas civil cases and federal cases may be looked to for guidance."

This is consistent with the discussion in *Williams v State*, 936 S.W.2d 399 (Ct Ap TX Fort Worth 1997), which at page 403 states: "In Texas, Rule 702 is the same for either civil or criminal cases...." The court cites with approval both *Daubert* and the Texas cases of *Kelly* and *E. I. du Pont.* Further, the Court rejects appellant's argument that the State's expert chemist had to satisfy the

specific factors listed in *Daubert.* As a matter of fact, the expert did not satisfy either the *Daubert* or *Kelly* list of factors, yet the Court of Appeals said that the trial court had properly satisfied itself as to the scientific reliability of her testimony. Some scientists might be narrow-minded in their view of what demonstrates a scientific theory, method or opinion to be reliable, but courts of law by and large refuse to be narrow-minded. After all, courts have a long history of continuity in resolving practical problems of human conflict, and history shows they have done quite well on balance. Why abandon what has worked well in favor of a scientific fad which admits it will change its mind without prior notice as it has so often in history?

To test inherent reliability of the consensus of the scientific establishment, its own admitted long-range rate of error should shatter any illusion in that regard. After all, they have yet to decide exactly what science is, while courts of law have no doubt what a law is and what a court of law is. The authors feel comfortable in a role of assistant to judicial determination of the truth, rather than as an arbiter of truth. Not the most scientific of scientists should be given the latter role. Maybe that is why it is said in *Olin Corp. v Smith*, 990 S.W.2d 789 (Ct Ap TX 1999), at page 797: "Opinion testimony does not establish any material fact as a matter of law and is never binding on the trier of fact." As stated in *Waltrip v Bilbon Corp.*, 38 S.W.3d 873 (Ct Ap Beaumont TX 2001), this is true even if expert testimony is uncontroverted.

B. DISCLAIMER.

The authors are not attorneys and do not offer legal advice. We share what our study and experience have taught us about supporting or challenging the reliability of an expert's opinion. We found that there is no single source for the examination of an expert, which is as precise, thorough, practical and based on reality as in reported court cases. Using Texas cases as sources, we distilled their treatment of this issue and supplemented it with selected Federal cases. This is in keeping with *Carter v State*, 5 S.W.3d 316 (TX Ap Houston 1999), which observes in footnote 2 at page 321 "that the Texas Court of Criminal Appeals has approved the practice of interpreting Texas Rules in accordance with Federal Rules where the wording is the same."

The resulting queries are organized in a logical, practical and comprehensive system of examination. It proceeds from point to point, each phase building on what has gone before and covers almost all applicable queries, providing a flexible, expansive framework into which specialized queries applicable to a particular case can be fitted. There is necessarily overlap and repetition in the treatment, since each issue regarding expert evidence is inseparably intertwined with others. There is a moderate degree of contradiction and inconsistency, since Law is a living entity, continually reevaluating and refining itself, constantly adjusting itself to new and unforseen challenges. At least one court noted that about itself. In *Waltrip v Bilbon Corp.*, 38 S.W.3d 873 (Ct Ap Beaumont TX 2001), the Court considered an appeal of inadequate award for pain and suffering. At page 881, in footnote 3, it says: "This is not the first time we have considered this or similar issues. While at times not a model of consistency, we believe we have steered clear of a 'strict application' approach in favor of a 'case by case' examination."

We have not striven to offer what would be considered as landmark decisions. The point is to illustrate how courts ruled on a particular issue and, occasionally, how later they employed that ruling in another situation. At times it is shown that a decision by one court reviews previous rulings by other courts on some issue so that, if you wish to research the matter, you have an authoritative starting point. Similarly, no historical research has been done on how the case law has developed. We focus on practicalities regarding direct and cross-examination of experts with at least one case citation to support each suggestion. If a proposed query becomes a point of dispute leading to a full

blown fight for a legal ruling, the cases we provide should give a jumping off point. Hopefully, good enough not to be a jump off a cliff into shoal waters.

In speaking of illustrative, fictional experts, the opposing expert is referred to as male and your expert as female. This convention provides clarity and avoids terminological oddities such as "he/she" or "s/he."

C. HANDWRITING EXPERTISE AS AN ILLUSTRATIVE EXPERTISE.

To show how suggested queries can be applied, as many as possible are illustrated in Section IX with either actual testimony or what could be used as testimony in our own field of handwriting expertise. Contrary to the growing myth that handwriting experts fall on their faces when confronted with a *Daubert* challenge stands *United States of America; Government of the Virgin Islands v Velasquez*, 64 F.2d 844, 33 Virgin Is. 265 (3 Cir 1995), in which Lynn Bonjour, government handwriting expert, made a positive impression on the Court of Appeals, as evidenced by several places in the record. Both the trial court and the Court of Appeals held her clearly admissible under *Daubert*. Since the challenge against her was specifically on the premise that her handwriting identification expertise was not scientifically reliable, the Court's rejection of the challenge can only be interpreted as its acceptance of the expertise as scientifically reliable.

Section IX derives mostly from actual experience of one of the authors in undergoing *du Pont/Daubert* hearings in Texas courts. That she was found admissible in these cases illustrates that the approach presented works. That is the desired bottom line in litigation, just as a profit is the desired bottom line in business.

SECTION II. EXPERT QUALIFICATIONS.

A. THE RULE.

Rule 702 of the Texas Rules of Evidence reads: "If scientific, technical, or other specialized knowledge will assist the trier of fact to understand the evidence or to determine a fact in issue, a witness qualified as an expert by knowledge, skill, experience, training, or education, may testify thereto in the form of an opinion or otherwise."

That sentence is like the gift of fire which Prometheus stole from the gods of Olympus to warm and brighten human existence. Like fire, it has given those gifts, but like fire it has also spawned conflagration, conflict and contradiction. The knack is to have it be all warmth and brightness for one's cause at court, but only its conflagration, conflict and contradiction should be for the opposing party's cause. The first act is to qualify one's own expert, and the second to disqualify or embarrass the pretensions of the opposing expert. By considering in turn each of the five factors given in Rule 702, these two acts can be effectively planned.

Several cases, such as *Gainsco County Mutual Insurance Co., et al., v Martinez*, 27 S.W.2d 97 (Ct Ap TX San Antonio 2000), at page 104 citing earlier cases to the same effect, emphasize that there are no definite guidelines for determining any of the five factors proving expertise. That has not prevented some from asserting that only their training and experience are qualifying. Nor has it prevented the anti-expert experts (our term for critics of forensic expertise) from repeating the fallacy that only one *Daubert* factor, rate of error particularly as in competency testing, is the hallmark of all scientific reliability. Such contentions are not scientific or reliable, nor in keeping with what courts have held.

The rule that expert evidence must be shown to be both relevant and reliable as a foundation for admission applies to both criminal and civil cases, to both plaintiff and defense expert evidence. The Court's synopsis in *Brownsville Pediatric Assoc. v Reyes*, 68 S.W.3d 184 (TX Ap 2002), states: "(2) expert witness testifying for defense was subject to same level of scrutiny as plaintiff's expert witnesses...." Defendants had incorrectly contended otherwise on basis plaintiff had burden of proof, not they.

B. PRESENTING YOUR EXPERT'S QUALIFICATIONS.

In presenting one's own expert, "or" is the key word among the five qualifying factors. If one can show the expert fully qualified under each factor, well and good. If any one is weak or lacking, then the very one which is most enhanced should be emphasized. Indeed, it should be portrayed as the most important of the five in this particular case.

If one's expert barely qualifies under just one of the five, one's best case law might be *Carter v State*, 5 S.W.3d 316 (TX Ap Houston 1999). Having noted that the prosecutor "did a careless job of qualifying" a police chemist on the basis of the scant experience testified to, at page 319 the Court informs us that only one of the five qualifying factors need be met: "Although we have not found a decision from the Texas Court of Appeals, we have found numerous cases from the federal courts stating that a witness may be qualified on the basis of only one of the five qualifications listed in Rule 702—including practical experience." Seven federal illustrative cases are cited. Footnote 2 observes "that the Texas Court of Criminal Appeals has approved the practice of interpreting Texas Rules in accordance with Federal Rules where the wording is the same."

If your expert ran into trouble previously, it may not be the kiss of evidential death. In *Jensen v State*, 66 S.W.3d 528 (TX Ap Houston 2002), at page 543 it is said that in an earlier case, *Perez v State*, 25 S.W.3d 830 (TX Ap Houston 2000), admission of Trudy Davis' opinion was found to be error because she "was interpreting another professional's theories about a syndrome," but in this

case her "opinions stemmed from her experiences working with child abuse victims." In *Perez* the Court had expressed no decision regarding her qualifications. It has been said that experience is the mistakes we have made and learned from, so be sure your expert, as the one in *Jensen*, learned her lesson on admissible opinion.

1. KNOWLEDGE.

In *Amis v State*, 910 S.W.2d 511 (Ct Ap TX Tyler 1995), speaking of specialized knowledge assisting the trier of fact, at page 517 the Court states: "The burden of proof is on the proponent of the evidence to establish the predicate facts by a preponderance of the evidence." A list of courts asserting the same would run for pages.

If the necessary knowledge can be demonstrated, there is no requirement that it have been attained in any particular manner. In *Beard Drilling, Inc., v Steeger, et al.*, 361 S.W.2d 888 (Civ Ap TX Houston 1962), a 1962 case, at page 896 it is stated: "A witness may qualify as an expert by reason of special knowledge acquired through experience or study." The same rule is expressed subsequent to *Kelly* and *du Pont*, as will be seen in later discussion. For a more recent statement of that principle, see *Pittsburgh Corning Corp. v Walters*, 1 S.W.3d 759 (Ct Ap TX Corpus Christi 1999).

Courts do not support parochialism in evaluating an expert's relevant knowledge. Thus in *Hall v Huff*, 957 S.W.2d 90 (Ct Ap TX Texarkana 1997), an out-of-state doctor was found by the trial court to be unqualified to testify on nursing standards of care in Texas. On the contrary, the Court of Appeals cited a California case to the effect that surely "a qualified doctor would know what was standard procedure for nurses to follow." Nor was just being a physician a factor disqualifying the expert. Though not familiar with Texas nursing standards, the expert assumed they were similar to the rest of country. Texas has the same or similar community standards, asserted the Court. However, there are limits to the non-physician's permitted testimony. In *Blan v Ali*, 7 S.W.3d 741 (TX Ap Houston 1999), it is ruled at page 745: "A non-physician witness cannot testify as to a physician's standard of care. [Citation omitted.] The physician serving as the expert witness, however, need *not* be a specialist in the particular branch of the profession for which the testimony is offered." [Emphasis in original.] However, *Sunsinger v Perez, et al.*, 16 S.W.3d 496 (TX Ap Beaumont 2000), affirmed summary judgment for defendant doctor in medical malpractice because patient failed to present expert evidence as to standard of care that defendant doctor had allegedly violated, which expert would have to be of the same school of practice. Defendant doctor was competent to give evidence that he had not violated applicable standards, apparently because he was of the same school of practice as himself.

Prepare questions that permit your expert to demonstrate how thoroughly she knows the subject matter. Experts, however knowledgeable, may be attacked on the basis that they did not learn them in a manner prescribed by a self-interested organization of experts. The Court of Criminal Appeals in *Holloway v State*, 613 S.W.2d 497 (TX Cr Ap 1981), rejects that narrow-minded view, saying at page 501: "The specialized knowledge which qualifies a witness may be derived entirely from a study of technical works, or specialized education, or practical experience or varying combinations thereof; what is determinative is that his answers indicate to the trial court that he possesses knowledge which will assist the jury in making inferences regarding fact issues more effectively than the jury could so unaided." This seems to be the legal equivalent of the culinary principle: "The test of the pudding is in the eating."

It would be no comfort after being served a dreadful meal in a famous restaurant to be assured that the chef studied at the Cordon Bleu, garnered top honors in his field, and is a diplomate in the

most selective chef associations. So too, in a hearing on qualifications, serve the judge your expert's full range and depth of knowledge and understanding, because, whatever may happen afterwards, a well made record will show abuse of discretion if one very smart expert is disqualified because some piece of paper happened not to be displayed on the office wall. However, knowing better may not be good enough. In *Sexton v State*, , 93 S.W.3d 96, 2002 Tex Crim. App. LEXIS 194 (TX Ct Cr Ap 2002), it is noted that the text by DiMaio on ballistics was relied on by the prosecution expert Crumley. Nevertheless, the Court of Appeals, 12 S.W.3d 517 (TX Ct Ap San Antonio 1993), had said previously that, since it was a hobby with him, he was unqualified as an expert and that his opinion could not counter Crumley's that the tool mark evidence was 100% accurate. Footnote 5 by the Court of Criminal Appeals states with some irony: "As a result, we find [the Court of Appeals'] reliance on the treatise written by DiMaio to be unusual."

2. SKILL.

In the complexity of rules on expert evidence, some tend to lose sight of the central issue: Can the proffered expert do what needs to be done? That is, does the person have the required skill? Some claim that the question of the right or wrong label is the heart of the matter. Thus, in questioned documents, experts at first were "handwriting experts" since that was most of what they did, and that is still 80-90% of what all document examiners do (*Ramsey 1996*). Since others who knew handwriting analysis and were far more skilled at handwriting observation adopted the label, other labels were invented, such as document examiner, questioned document examiner, forensic document examiner. Who knows but that at this moment someone is creating a new label in the hope of proving a particular group superior to all comers.

Courts of law seem to prefer the common wisdom of the populace, unless there is compelling reason not to. Is that not the prudence of adhering to our jury system? Thus in *Jenkins v U.S.*, 307 F.2d 637 (DC Cir 1962), it is said that expertise in psychology depends on knowledge and skill, not on a claim to the title "psychologist." Our advice is to give scope for your expert to demonstrate the skill to the trial judge, such as the expert's work product in an illustrated journal paper presenting a case report on the same kind of problem.

3. EXPERIENCE.

In *Brown v State*, 881 S.W.2d 582 (Ct Ap TX Corpus Christi 1994), the FBI's DNA expert, with Ph.D. in organic chemistry, had been involved with DNA analysis for several years, most of them as a supervisor. He testified to various types of training he had attended, had examined more than 700 cases, and now devoted his entire time to DNA analysis.

The Court of Appeals in *Fields v State*, 932 S.W.2d 97 (Ct Ap TX Tyler 1996), held that "testimony by state's narcotics expert as to drug trafficker patterns and characteristics was properly admitted into evidence." At page 102 the six factors are given; additionally, "drug traffickers often carry a lot of money with them." The expert qualified through his testimony about his years of experience and his position as commander of a narcotics task force.

A thorough job of presenting applicable experience is illustrated in *Egan v Egan*, 8 S.W.3d 1 (TX Ap San Antonio 1999). It describes at page 4 the experience qualifying a real estate agent testifying as an appraisal expert and opining that a ranch was not partitionable. He had been engaged in buying and selling of ranches for more than 20 years, had 300 ranches listed at the time, worked on 2,000 ranches listed by other agents, assisted in partitioning at least five ranches, and been involved in sales of ranches in five states. This was very specific experience of the kind that had to be good or he would have been out of business long ago.

Experience might supply what would otherwise be the scientific theory or research the expert relies on. Thus in *Hernandez v State*, 772 S.W.2d 274 (Ct Ap TX Corpus Christi 1989), it was admissible for a doctor to testify that a knife wound was intentional and not accidental, basing that opinion upon other knife wounds which he had seen. This is parallel to cases, such as *Corn v State Bar of California*, 68 Cal.2d 461, 67 Cal.Rptr. 401, 439 P.2d 313 (1968), where a handwriting expert testified that a writing was intentionally disguised, thus addressing the state of mind of the writer. Such testimony as the latter is based both on the experience of the expert and on a goodly number of research studies in disguised handwriting. Likewise, in *McIntosh v State*, 855 S.W.2d 753 (TX Ct Ap 1993), a doctor, who had performed the autopsy on the murder victim, testified that the nature of the wounds on the victim and of the scratches on defendant's face showed that "this was a passion assault committed by a person known to the deceased." The Court cites *Hernandez v State* as an authority for the ruling. However, research has shown that years of experience had no correlation to handwriting examiners' being right or wrong on proficiency tests (*Found 2000*).

Occupational experience can provide the necessary knowledge for admissible expertise. Thus in *Cole v Central Valley Chemicals [CVC], Inc.*, 9 S.W.3d 207 (TX Ap San Antonio 1999), at page 212: "Farmers may become expert witnesses in matters within their knowledge. [Citations omitted.] Because Lewis Cole had special knowledge of the effectiveness of Lasso and Atrazine and that weeds cause lower crop yields, his affidavit provided more than a scintilla of probative evidence of causation." As in *Cole*, it would be necessary to establish not just the fact of one's occupation, but to make explicit on the record the pertinent knowledge and how it was obtained and used.

Later the thesis that expert experience can supply the theory or research upon which an opinion is based will be critically discussed. It is a dangerous legal rule that can invite and reward the slickness of the hireling.

4. TRAINING.

In *Emerson v State*, 880 S.W.2d 759 (Ct Cr Ap TX 1994), the Court of Criminal Appeals found that those administering the horizontal gaze nystagmus test had received a standardized training.

The testimony of the doctor in *McIntosh v State* who performed the autopsy in a murder case was not a novel scientific theory because of his training, along with his experience and observations in conducting numerous autopsies and examining physical evidence.

A specific course of training is not a *sine qua non*. In *Parish v State*, 165 S.W.2d 748 (Ct Cr Ap 1942), the state's handwriting expert from the Public Safety Department had attended no school and did not know of the existence of any such school. That went to the weight, not admissibility, of the expert's opinion. The reported case describes sophisticated procedures employed by the expert.

If your expert is subjected to the attack that she never attended a particular course experts or does not belong to a particular organization, your reply can be manifold. For example, consider the following suggested arguments, court cases supportive of them being discussed throughout this paper:

(i) Requiring a specific pathway to expertise is contrary to all applicable case law.

(ii) To require some specific association is to make such association the arbiter of the court's duty as gatekeeper.

(iii) An opposing expert witness who asserts that his way of becoming expert is the only way is acting in ignorance of the laws and rules governing his practice as an expert, and so should be ruled inadmissible.

(iv) To rule that only government employed or government trained attorneys qualify to practice, or only such doctors are competent physicians, is the same unreasonable act your opponent wants the

court to take.

(v) What counts is the specific fit of qualifications to the precise issue the expert witness is to address, and you have set them forth in full for your witness.

(vi) The opposing expert has a laundry list of paper qualifications but not the specific fact-related qualities that your expert has.

Always turn the attack back on the attackers, and they will more likely settle down to litigating the merits of the case.

5. EDUCATION.

Education need not be in particular course or at a particular institution; it need only be effective. Self-study and self-education are explicitly approved by courts. Thus in the *Velasquez* case at page 278 the Court states: "In particular, we point to the Professor's eight years of self-directed research on handwriting analysis and his co-authorship of a law review article on the subject." (*Risinger 1989*). The research referred to was literature research, not laboratory or field research, and thus self-study or self-education. Since the professor lacked training, experience and skill (as well as knowledge according to some who critiqued his writings), having never performed handwriting identification, he was no more than a Monday morning quarterback, negatively critiquing those who actually do the work. However, according to more than one court decision concerning this professor and his circle of anti-experts, even that low level of expertise is sufficient expertise before the law. This illustrates how an attorney might escape by proving that an expert is decidedly qualified under one of the five areas mentioned in the rule.

Two points on which such witnesses can be challenged. First, the irony is that such anti-expert experts have never established the reliability of their own expertise in the precise way in which they say it must be done by those whom they oppose. Second, it is misleading that he had eight years of research, since in those same eight years he taught, traveled, vacationed, studied other topics, and so on. It is like the handwriting expert whose resume had a total of more than 120 years education and experience, while he was in his fifties. It seems no cross-examiner had ever challenged his creative skills in math.

The Court of Criminal Appeals in *Jordan v State,*, 928 S.W.2d 550 (Ct Cr Ap TX 1996), found that the expert on eyewitness reliability was qualified specifically in the particular expertise under consideration, such qualifications being noted at page 552: "His special training and expertise in the area of eyewitness identification come from self-education, reading the works of others in the field, working with crime victims concerning memory, and teaching courses in this area." This agrees with *U.S. v Velasquez*.

6. CONCLUDING REMARKS.

If the opposing attorney argues that on all five scores his expert outshines yours, counter by saying how *Broders, et al., v Heise*, 924 S.W.2d 148 (TX 1996), at page 153, quotes *Nunley v Kloehn*, 888 F.Supp. 1483 (E. D. WI 1995): "The focus, then, is on the 'fit' between the subject matter at issue and the expert's familiarity therewith, and not on a comparison of the expert's title or specialty with that of the defendant or a competing expert."

Do not leave anything out in presenting your expert's relevant qualifications, particularly those specific to the precise problem she is to address. In the case *In the Interest of M.D.S., A Child*, 1 S.W.3d 190 (Ct Ap TX Amarillo 1999), the Court of Appeals recognizes that the expert's qualification might have enjoyed a specific fit, but the Court had to go by the record of the case. At page 203 it is noted that a medical doctor with full residency in psychiatry and practice in child

psychiatry did not testify "that he had any training or experience with termination of parent-child relationships. Dr. Wurstbaugh may well have been qualified to give expert opinion testimony in regard to termination of parent-child relationships. This record, however, does not demonstrate those qualifications." Both authors have had the harrowing experience of preparing a thorough examination for the proffering attorney, only to be left hanging after a cursory, generalized inquiry. Often, as the cross-examining attorney moves in for the kill on *voir dire*, fortunate opportunity is given to complete testimony as to sufficient qualifications to pass muster with the judge. Never leave your expert evidentially naked nor clothe the opposing expert so left naked.

Mega Child Care, Inc. v Texas Department of Protective and Regulatory Services, 29 S.W.3d 303 (Ct Ap TX Houston 2000), observes at page 310 that what is to be considered is "the actual qualification" and the "fit" to the subject matter at issue. Tie each phase of presenting your expert's qualifications to the precise factual issue to be addressed and how specifically the fact finder will be assisted. See the discussion under Subsection B, SPECIFIC FIT TO ISSUES IN THE INSTANT CASE, of Section VIII, MISCELLANEOUS INQUIRIES.

Desperation will inspire almost any challenge. For example, in *Rehabilitative Care Systems of America v Davis*, 43 S.W.3d 649 (Ct Ap Texarkana TX 2001), a challenge was mounted that the witness *was* an expert. This is considered at page 663: "There was also testimony by Dr. Harris to the effect that he was not actually there when Davis was injured and that Davis could have been lying to him about the alleged incident. The fact that Dr. Davis could not positively testify that Davis was telling him the truth about the June 10, 1992 incident at physical therapy does not affect reasonable medical probability. If he knew or observed the incident itself, he would be a fact witness rather than an expert witness." The authors have had the same challenge tossed at them, being asked did they see the questioned document and exemplars being written, or how do they know opposing counsel's representations were true, as if it is inexpert to be expert, or unreasonable and unreliable to have reasonable reliance. The best answer is: "Counsel, I am not a percipient witness."

Lastly, those who proffer experts tend to argue that the qualifications for testifying are also proof that the opinion is credible. The authors prefer a rule which isolates the expert's qualifications from the jury, who would only hear the theoretical and factual bases why the opinion is reliable and credible. However, we are aware how often courts have said that the expert's qualifications go to the weight of the opinion. The case *Minnesota Mining and Manufacturing Co. v Atterbury, et al.*, 978 S.W.2d 183 (Ct Ap TX Texarkana 1998), at page 200 gives what we believe is the preferable view: "[H]erndon based his opinion on his considerable experience in the field of neurology. This evidence goes to whether Herndon was qualified to give an opinion, not on whether his opinion is reliable." Admittedly this is a minority view, however well it is to be wished the norm. Too often the logic seems to be that an expert *should* know better, so there is no doubt that he does, or that he has been doing it so long that he *must* be good at it and so definitely is. If your opponent relies heavily on such argument, you know that reality is probably not on his side and he knows it.

C. CHALLENGING THE OPPOSING EXPERT'S QUALIFICATIONS.

Before mounting a challenge to the opponent's expert evidence, determine whether or not they have met their threshold burden. Failure to do so in the case *In the Interest of CDK, JLK, and BJK, Minor Children*, 64 S.W.3d 679 (Ct Ap Amarillo TX 2002), resulted in a ruling upon appeal that the trial court had abused its discretion in admitting results of a test for pedophilia. Lack of evidence of admissibility is not evidence of inadmissibility, as stated at page 684, footnote 8: "In so holding, we do not categorize the Abel Assessment as inadmissible junk science. We simply conclude that the CPS failed to satisfy *Robinson*...." Appellants had duly objected and so preserved the point for

appeal where they prevailed on it.

When challenging an opposing expert, the key word in Rule 702 is whichever of the five factors that expert is weakest on, particularly if the weakest factor coincides with one's own expert's strongest factor. Once the proffering party meets its threshold burden, the other party has a burden of producing positive evidence to the contrary. Thus in *Puderbaugh v State*, 31 S.W.2d 683 (Ct Ap Beaumont TX 2000), at page 686 the Court explains why the challenge on appeal fails: "Puderbaugh did not produce any evidence challenging the legitimacy of the field of social work, nor did he rebut Brouwer's expertise in the field or offer any publications questioning the legitimacy of play therapy." The social worker had counseled the child victim of sexual assault and testified about it.

However, just because an expert either lacks or enjoys a particular school of training, or does or does not have membership in one or another organization, does not disqualify him. For example, in *First Coppell Bank v Smith*, 742 S.W.2d 454 (Ct Ap TX Dallas 1987), properly admitted a graphoanalyst, Ray Walker, whose training and experience did not include government courses and employment, was properly admitted. Nine jurisdictions were named in which he had qualified as a document examiner, which is an overwhelming amount of authority on the issue. Walker is now deceased.

To illustrate that a particular judge, having the same information, could conclude the opposite without an abuse of discretion, the trial judge in *U.S. v Bourgeois and Crowe*, 950 F.2d 980 (5 Cir 1992), refused to qualify Walker. At page 987: "Mr. Walker testified to experience in a vast array of subjects, one of which was forensic document examination. Mr. Walker stated that he had studied Egyptology, psychology, hypnosis, and religion at various institutions. He testified that he had fulfilled the requirements for a masters degree in graphoanalysis, the analysis of personality through examination of handwriting, although a disagreement with the institute kept him from receiving his degree. He also claimed to hold a doctorate in metaphysics and religion, which he completed by correspondence." International Graphoanalysis Society did not offer degrees, but it issued certificates designating "Graphoanalyst" and "Master Graphoanalyst."

1. KNOWLEDGE.

Knowing how to use dogs to detect drugs is specialized knowledge, and so a law enforcement officer handling such a dog should have been required to qualify as an expert before testifying as to how the dog uncovered evidence. *$18,800 In U.S. Currency...*, 961 S.W.2d 257 (Ct Ap TX Houston 1 Dist 1997)

In *Broders, et al., v Heise* the expert failed to testify to his entire knowledge which was relevant, assuming he had the entire relevant knowledge. At 924 S.W.2d 148, page 153, the Supreme Court observes: "While he knew both that neurosurgeons should be called to treat head injuries and what treatment they should provide, he never testified that he knew, from either experience or study, the effectiveness of those treatments in general, let alone in this case. On this record, the Heises simply did not establish that Dr. Condo's opinions on cause in fact would have risen above mere speculation to offer genuine assistance to the jury." The safest course is to make your expert's full range of knowledge explicit on the record. So if your medical expert took a seminar on how head injuries are treated, have her state explicitly what those treatments are, how they are applied, what good they do, and what harm neglecting them does. Leaving it to chance is to chance losing it.

In *Joy v Bell Helicopter Textron*, 999 F.2d 549 (Ap DC 1993), *Daubert* is quoted at page 570 concerning admission of expert knowledge: "The word 'knowledge' connotes more than subjective belief or unsupported speculation." Have your expert give the objective nature of the knowledge and its authoritative support.

The Court in *North Dallas Diagnostic Center v Dewberry*, 900 S.W.2d 90 (Ct Ap TX Dallas 1995), notes at page 94: "Under the first prong, an expert's opinion should be based on an existing body of scientific, technical, or other specialized knowledge that is pertinent to the facts in issue." This explicitly provides two avenues of attack and implicitly a third. One, the knowledge must be an existing body of knowledge, not merely theories made up for the occasion or ideas gathered by the expert just for litigation. Two, it must be pertinent to the case, that is, have the "specific fit" required. Third, the testifying expert must have a sufficient grasp of it. The first point is attacked by asking for specific citations to the pertinent literature. The second is attacked by showing something peculiar to the instant case which is not covered by the literature cited by the expert. The third can be shown by bringing to the court's attention alternative and/or greater authorities than the expert proposes to rely on. There is out and out ignorance, and there is dangerously small or selective knowledge. Neither of them is expert.

Expert knowledge must be useful, which requires adding something to the jury's pool of lay knowledge on the issue. The claimed "specialized" knowledge of an architect in *Pierce v State*, 777 S.W.2d 399 (Ct Cr Ap TX 1989), concerned perspective and seeming relative size of objects in a drawing. This was not beyond the ordinary knowledge of jurors, and testimony about it would have been superfluous.

2. SKILL.

If the expert will only do something that most of the rest of us can in the ordinary course of life, there is no special skill. By inference that is what the Court of Appeals in *Williams v State*, 850 S.W.2d 784 (Ct Ap TX Houston 1993), said of defendant's expert psychologist. At page 788 the Court states: "Dr. Brown's testimony was simply that appellant was not the type of person who would place obscene and threatening phone calls. This kind of character judgment does not constitute highly specialized knowledge, but is the type of assessment that lay people make every day. The trial court did not abuse its discretion by excluding the testimony." *People v Stapleton*, 4 IL Ap 477, 281 N.E.2d 76 (1972), was a handwriting case that parallels this one in regard to both the expert's knowledge and applied skill in the case as being nothing above the ordinary lay person's.

That all of several opinions related to factual issues which were not beyond the ability of the jury to evaluate equally as well was a major factor in upholding the trial court's exclusion of plaintiff's expert in *K-Mart Corp. v Honeycutt*, 24 S.W.3d 357 (TX 2000).

In *Houghton v The Port Terminal Railroad Association*, 999 S.W.2d 39 (Ct Ap TX Houston 1999), at page 48 the proffered expert was admitted only as a percipient witness for the same reason: "Because no expertise was required to show how the engine seat could have become misaligned, the trial judge allowed Culver to testify to his observations about the engineer's seat, but not as an expert."

3. EXPERIENCE.

If your expert is attacked as to lack of knowledge or other factor, some cases, such as *Jenkins v U.S.*, 307 F.2d 637 (DC Cir 1962), underline the function of "or" in the rule. Thus, at page 644 *Jenkins* cites several cases where non-medical experts were permitted to testify to a medical condition. The Court then concludes: "The kinds of witnesses whose opinions courts have received, *even though they lacked medical training and would not be permitted by law to treat the conditions they described*, are legion. The principle to be distilled from the cases is plain: if experience or training enables a proffered expert witness to form an opinion which would aid the jury, in absence of some countervailing consideration, his testimony will be received." [Emphasis in original.] See also

Gregory v State, 56 S.W.3d 164 (Ct Ap Houston TX 2001), at pages 179-180.

When the opponent moves for exclusion on basis of your expert's inadequate experience, argue the view taken in *Lincoln Property Co. v DeShazo*, 4 S.W.3d 55 (TX Ap Ft. Worth 1999). The objection was that the expert's experience was "too remote and superficial." At page 59 the Court held that such "addresses the credibility or weight of his testimony, not its admissibility." It was a fit topic for cross-examination, not grounds for exclusion.

Part of experience is testifying in court. In *Muhammad v State*, 46 S.W.3d 493 (Ap El Paso TX 2001), the excluded forensic psychologist, who was called by defense, had testified without objection at the bond hearing in the same case and ten other times, including before the same judge a few weeks previously. If the opposing expert has never or rarely testified or been excluded, bring that forth in *voir dire* or in an *in limine* hearing. But previous qualification in another case apparently is not proper grounds to assume the same in a new case. Thus, *Mata v State*, 13 S.W.3d 1 (Ap San Antonio TX 1999); remanded, 46 S.W.3d 902 (Ct Cr Ap TX 2001), at page 914 states: "It was inappropriate for the court of appeals to rely on its opinion in *Hartman* as evidence of McDougall's qualifications in this case."

If experience is offered as basis for acceptance of an expert, be sure it exists. In *State Farm Lloyds v Mireles*, 63 S.W.3d 491 (TX Ap San Antonio 2001), although an engineer's experience was the foundation for his opinion on heave in residential foundation, he could produce no data on an alleged similar occurrence years previously in a commercial project, and he had no studies on residential foundations. Indeed, the report gives the impression that it was his first analysis of heave in residential foundations. If that is the case with an opposing expert, argue that the alleged relevant experience lacks specific fit.

4. TRAINING.

A police officer was not qualified as an expert in handling drug detection dogs as "he admitted that he had no training in working with drug detection dogs and no authorization to work drug detection dogs. He also stated that he did not know if the dog in question was certified to be a drug detection dog. We agree that it was error to allow Walker to testify as an expert about the 'alert' of the drug detection dog." At page 266, *$18,800 In U.S. Currency*, 961 S.W.2d 257 (Ct Ap TX Houston 1 Dist 1997). On the contrary, in *Winston v State*, 78 S.W.3d 522 (TX Ap Houston 2002), two bloodhounds in separate blind performance tests of a scent lineup gave the exact same results because their handler had been trained to follow the standard methodology.

It was error, though harmless, to permit an officer to testify as an accident reconstruction expert in *Gainsco County Mutual Insurance Co., et al., v Martinez*, 27 S.W.2d 97 (Ct Ap TX San Antonio 2000), when he had not completed his training and this was his first case.

5. EDUCATION.

Appellee's expert in the case, *American West*, 935 S.W.2d 908 (Ct Ap TX El Paso 1996), did not have a medical degree or a Ph.D. in psychology. In light of the admissibility of experts who achieved superior knowledge through self-study, that would not seem to be dispositive of the question of admissibility; however, in light of other well aimed challenges against that expert, the lack did nothing to redeem her standing. The lack of a degree specific to the subject matter of the testimony can be overcome, as ruled in *Jenkins v U.S.*, 307 F.2d 637 (DC Cir 1962), at page 646: "We hold only that the lack of a medical degree, and the lesser responsibility for patient care which mental hospitals usually assign to psychologists, are not automatic disqualifications.... The critical factor in respect to admissibility is the actual experience of the witness and the probable probative value of his

opinion. The trial judge should make a finding in respect to the individual qualifications of each challenged expert." Thus, for each challenge against your proffered expert, mount on redirect a countervailing exposition of qualifications which compensate for the lack.

A friend of the authors related a court experience in which the opposing expert was giving evidence meant to impeach her habit of continuous self-education. The opposing expert on direct asserted that self-study was not a recognized way to become educated and that he had attended all the right government courses in questioned documents and all the brand name seminars and conferences. His intended *coup de grâce* of our friend's admissibility was to assure the court that he himself had never learned anything at all on his own. In such a situation, bring to the court's attention the provision of codes of ethics that one ought to engage continually in self-study, self-education. There is no other way to keep abreast of current developments in any discipline and of the continually developing legal provisions for expert testimony.

6. CREDENTIALS.

In the above discussions we have not given specific consideration to credentials of various kinds, such as membership cards, honors received, certifications, diplomate or fellowship designations, and so on. The sober thought of higher courts of law on the subject is well expressed by the Court of Criminal Appeals in *Holloway v State*, 613 S.W.2d 497 (TX Cr Ap 1981), at page 501: "Merely that the witness has professional credentials or occupational status in a calling which relates to the matter in question is insufficient to qualify him. Rather, it must be shown that he possesses special knowledge upon the specific matter about which his expertise is sought." Do include such things among the recommendations of your expert, but focus on that special knowledge with specific fit, establishing its reliability and relevance above all else. For a court or jury to let such credentials decide an issue of admissibility or of finding of fact is to be derelict of duty and shirk the labor of evaluating the evidence. It is to let the opinion of some anonymous person or persons in a private organization, whose credibility at trial is founded solely upon the expert's self-interested *voir dire* testimony, decide an issue which publicly accountable and legally authorized authority alone should decide.

The Fifth Circuit Court of Appeals expressed the same viewpoint in *Viterbo et ux. v Dow Chemical Co.*, 826 F.2d 420 (5 Cir 1987). The Court's opinion opens at page 421 with: "In this case today we consider the question whether it is so if an expert says it is so.... We uphold the district court because the plaintiff's expert brought to court little more than his credentials and a subjective opinion." The expert had been recognized as qualified in his field, but the opinion itself was found without reliable foundations. While credentials might go to the weight of an opinion, they should never be taken to make up for an inadmissibility of the opinion itself. Indeed, it might be argued to let even medical board certification decide the issue of admissibility of an expert opinion would be improper. In *Star Enterprises, et al., v Marze, et al.*, 61 S.W.3d 449 (Ct Ap San Antonio TX 2001), and *Tomasi v Liao, et al.*, 63 S.W.3d 62 (Ct Ap San Antonio TX 2001), the opinions of board certified medical doctors were found to be speculative, lacking in specifics.

Certifications do exist in questioned documents; however, in *Jenkins v U.S.*, 307 F.2d 637 (DC Cir 1962), at page 645, requirements for board certification for psychologists at that time are given, which may well be far exceeding anything current in questioned document organizations, even the self-styled premier American Board of Forensic Document Examiners. That group's certification chairperson embarrassed her colleagues in a *Daubert* hearing, *U.S. v Starzecpyzel*, 880 F.Supp. 1027 (S Dist NY 1995), where the judge found her expertise was not a science, but if it were a science it would have been the kind of junk science *Daubert* meant to keep out of the courts. One cannot

imagine a leading certification chairperson in psychology meriting a similar ruling.

There is another compelling reason why lack of some private certification or similar designation should not be dispositive in evaluating expert qualifications. In *Southland Lloyd's Insurance Co., et al., v Tomberlain, et al.*, 919 S.W.2d 822 (Ct Ap TX 1996), at page 827 *et seq.* the Court of Appeals discusses the error made by the trial judge in excluding an expert on insurance agency standards of care because the expert was not currently licensed by the State as an agent himself. Appellant argued that such a requirement imposed by the trial court "is an illogical and unnecessarily restrictive reading of Rule 702." The Appeal Court explained how the cases cited by appellee/plaintiff in this regard were not authority to support the trial court's ruling. Not only is a particular license unnecessary, but one need not have taken a particular path to achieve expert knowledge. As long as specialized knowledge will assist the trier of fact, "a person who has acquired such knowledge through any one of a number of methods may testify based on that knowledge." One need not have garnered the qualifications in Texas. The proffered expert had taught as a state-approved instructor of insurance agents. "On these facts, we conclude that it was an abuse of discretion for the trial court to exclude Altpeter's expert testimony simply because he did not hold a current license." If lack of a legally established government license cannot disqualify an expert, how can it be a legally valid or rational position to assert that any kind of expert must have a particular training, a particular government experience, a particular membership, or a particular certification from a particular private organization?

Thus, *Glenn v C & G Electric, Inc.*, 977 S.W.2d 686 (Ct Ap TX Fort Worth 1998), says at page 689: "A physician's license does not automatically qualify the licensee as an expert on every medical question." See also *State v Northborough Center, Inc., et al.*, 987 S.W.2d 187 (Ct Ap TX Houston 1999). See also *Smith v State*, 65 S.W.3d 332 (Ct Ap Waco TX 2001), where certification by the State was not required before testifying as expert in HGN. Nor does a college degree confer automatic admissibility, as sated in *Roise v State*, 7 S.W.3d 225 (TX Ap Austin 1999), at page 234: "A degree alone is not enough to qualify a purported expert to give an opinion, as the case may be, on every conceivable medical question, legal question, or psychological question. The inquiry must be into the actual qualification." Some groups adopt written policy that anyone with a background they disapprove of is unqualified to be an expert witness. Thus the Questioned Document Section of International Association for Identification asserted in writing that all graphologists are unqualified, although about 10% or more of their membership have a graphological background. Courts are not so sure of such day-and-night standards, as stated in *Helena Chemical Co. v Wilkins, et al.*, 18 S.W.3d 744 (TX Ap San Antonio 2000), at page 752: "There exists no bright-line test to guide us as to whether a particular witness is qualified as an expert."

Fitts v State, 982 S.W.2d 175 (Ct Ap TX Houston 1998), intimates that lack of certification is hardly a barrier to admissibility. At page 183 the Court of Appeals states: "A review of the *Kelly* factors shows that Cavitt, an experienced dog trainer, modified existing training techniques to train his dogs in hydrocarbon detection, a field with no generally recognized accepted method or certification. Notwithstanding the lack of a certification process, hydrocarbon-sniffing dogs are utilized around the country in arson investigations." Whatever the fancy name of a certifying body, neither court nor counsel really know its worth absent direct evidence from that body itself. The witness asserting his own credibility may be promoting a myth about his certification's impeccable qualities. At least one certifying body in the United States is considered by many to be selling credentials (*Hansen 2000*). That organization more than once sent one of the authors assurance of certification in a field the author has no pretensions in. It was guaranteed to be had for a substantial fee and the listing of most minimal qualifications which were not even specific to the field in

question. No wonder hydrocarbon-sniffing dogs do not bother being certified.

This holding in *Fitts* is strongly supported by *Gates v State*, 24 S.W.3d 439 (Ct Ap TX Houston 2000), where at page 444 the Court says: "We are thus faced with the interesting question of whether a witness who admits he is not an expert by certification, can nevertheless be an expert by experience so as to be qualified under rule 702. We hold that Mayes's experience with suicides both while working in a funeral home [during high school] and as a peace officer [for 11 years] resulted in a specialized knowledge of suicides...." He had testified that the victim did not commit suicide since in his experience suicides were never shot in the back of the head. In *Harnett v State*, 38 S.W.3d 650 (Ct Ap Austin TX 2000), at page 659 it is said explicitly that licensure or certification in the particular discipline is not a *per se* requirement to be an expert witness. See also *Schindler Elevator Corp. v. Anderson*, 78 S.W.3d 292, 402 (TX Ap Houston 2001), "However, a witness need not have a college degree to qualify as an expert."

7. CONCLUDING REMARKS.

Do not neglect an opportunity to put on record your opposition to the opposing expert's qualifications, or your later fate might be like appellant's in *Martinez v State*, 993 S.W.2d 751 (TX Ap El Paso); reversed, 22 S.W.3d 504 (TX Ct Cr Ap 2000). Defendant did not object to opposing expert's qualifications at the proper time during trial and so could not argue it on appeal. For that and other reasons the Court of Criminal Appeals affirmed the conviction, reversing the Court of Appeals. In *Mercier v MidTexas Pipeline Co., Mercier v Teco Pipeline Co.*, 28 S.W.3d 712 (Ct Ap TX Corpus Christi 2000), the company failed at trial to "object to Williams' testimony on the basis that he was not disclosed as an expert witness." Consequently, the issue was not preserved for appeal. At the same page, 721, the Court also rules: "To preserve error an objection must state the specific grounds for the desired ruling if those grounds are not apparent from the context of the objection." See also *$7,058.84 In U.S. Currency v State*, 30 S.W.3d 580 (Ct Ap Texarkana TX 2000), where Appellant waived grounds for excluding expert testimony by not objecting on same grounds at trial. Fortunately, State's evidence was still found insufficient by the Court of Appeals. In *Nissan Motor Co., Ltd. v Armstrong*, 145 S.W.3d 131 (TX 2004), the argument on appeal of lack of qualifications was intimated to have had a good chance of success but that it had not been asserted at the trial level and so not preserved on appeal.

These cases may be the legal application of "speak up or forever hold your peace." Silence may be golden, but fail to break yours at the right time in the right way and it can be your client's gold in your opponent's pocket. Be alert lest the evidence you objected to is brought in at another time. In *Castillo v State*, 79 S.W.3d 817 (TX Ap Dallas 2002), at page 827 the Court says it need not consider a challenge to State's expert since "the same evidence was admitted later without objection." An objection had been sustained to a question, and then the same opinion was later elicited of the same witness without objection.

If your challenge to the admissibility of the opposing expert as an expert is not successful, there are other avenues of attack which might result in a ruling of inadmissibility of the expert's testimony. In the *American West Airlines, Inc., v Tope*, 935 S.W.2d 908 (Ct Ap TX El Paso 1996), the Court of Appeals found specifically that Ms. Gibson was qualified as an expert witness. Also, her observations of appellee Tope were relevant. However, at page 919 the Court says: "[V]iewing the factors as a whole we cannot say that the trial court abused his discretion in determining Ms. Gibson's opinion did not rise to the level of reliability necessary under the *Robinson* test." Robinson was appellee in the *E. I. du Pont de Nemours* case before the Supreme Court, which defined three distinct areas of inquiry: (1) the expert's qualifications as an expert, (2) the testimony's

relevance to a fact in issue, and (3) the reliability of the underlying theory. We can add two other areas of inquiry from other cases: (4) the reliability of the technique employing the theory and (5) the appropriateness of applying the technique to the pertinent facts of the instant case. According to *Kelly v State,* 792 S.W.2d 579, the last is for the jury as fact finder. We will set forth factors related to each of these five areas of enquiry which could weaken the proffered expert opinion in credibility and might make it inadmissible. So do not abandon a challenge until the entirety of potential inquiries has been assessed. See also *K-Mart Corp. v Honeycutt*, 24 S.W.3d 357 (TX 2000), at page 360.

However, conceding that the opposing expert is qualified and that the method is acceptable does not prevent raising legitimate objections to admissibility of that exert's opinion on other grounds. Thus in *Durhan v State*, 956 S.W.2d 62 (Ct Ap TX Tyler 1997), at page 66 the Court of Appeals considers just such a situation: "Appellant did not object to Garriott's qualifications as an expert in the field of blood testing and toxicology, and even stated to the court that he was 'not objecting to the fact that gas chromatography or the mass spectrometry [were] accepted within the scientific community'; his objection was directed only to whether Garriott could reach a scientifically acceptable conclusion regarding the time and degree of impairment from marijuana ingestion based upon the levels of cannabinoids found in the blood stream. The trial court overruled his objection." The case was affirmed as reformed on an unrelated issue. Conceding an expert's qualifications may throw away an advantage. In *Mata v State*, 13 S.W.3d 1 (Ap San Antonio TX 1999); remanded, 46 S.W.3d 902 (Ct Cr Ap TX 2001), at page 914 Defendant conceded at trial that McDougall was qualified to perform retrograde extrapolations generally, while the Court of Criminal Appeals intimated he might not have been shown to be so in this particular case.

If opposing counsel insists to the court that your expert is unqualified simply because she lacks some specific single qualification or set of qualifications which his expert possesses, you might employ reverse psychology and adopt an *ad hominem* argument. Quote a case like *Jenkins v U.S.*, 307 F.2d 637 (DC Cir 1962), which says at page 643: "The test, then, is whether the opinion offered will be likely to aid the trier in the search for truth. In light of that purpose, it is hardly surprising that courts do not exclude all but the very best kind of witness." Then argue: "Assume, your Honor, *arguendo*, that their expert is the better qualified; that does not mean ours is unqualified. If so, the jury will be all the more impressed with the sterling qualities of their expert as ours modestly and with feeble flickers testifies after such flashing brilliance." Sarcasm has positive uses.

If at all possible be proactive, not merely reactive, when your expert is attacked by opposing counsel and experts. In *Gammill v Jack Williams Chevrolet, Inc.*, 972 S.W.2d 713 (TX 1998), defendant/appellee mounted attacks on plaintiffs' several experts on all fronts: qualifications, data, testing, etc. There was apparently no counter-attack as intimated at page 718: "The Gammills do not argue that defendants' experts' affidavits were insufficient to support summary judgment. Thus, if the Gammills' arguments fail, the summary judgment must remain undisturbed." One author is routinely attacked by opposing attorneys using their experts to make assertions which had been proven false in previous attacks. Yet attorneys calling the author as an expert never mount a counterattack, even on the falsity of the opposing expert's affidavits. Turn an opposing party's attack back against that same party wherever there are grounds to do so. "Turn about is fair play." Additionally, mount attacks on other grounds, such as the opposing expert is not competent to evaluate another expert's credibility.

After considering the expert's qualifications, which is the same as considering the expert's admissibility as an expert, admissibility of the opinion itself must be considered. More than one judge has ruled that, though the witness was qualified in the expertise involved, the expert opinion

itself was not admissible. Like a combat commander, prepare second and subsequent lines of defense against the opposing expert, as suggested by each sub-section and item of this book. Each illustrates a point of attack in presenting your own expert evidence. Many a battle may be a draw or a loss, but a single subsequent win can often turn the entire contest around. Always look to the next main chance.

SECTION III. THE OPINION: THE EXPERT'S CONCLUSIONS.

Proffered expert evidence must be relevant and reliable. This text focuses on reliability, since relevancy is more a legal issue and reliability more a technical issue. If one can show that the opinion addresses a fact not relevant to any issue before the court, the opinion should be excluded. Thus in *Melendez v Exxon Corp.*, 998 S.W.2d 266 (Ct Ap TX Houston 1999), at page 277 it is noted that appellant/plaintiff's expert did not know what Exxon's permits allowed at the time in question or of any enforcement action against Exxon. "The evidence Dr. Carmen would have provided concerned alleged violations of emissions permits by Exxon and does not establish that Exxon attempted to require Melendez to perform some illegal act with respect to those emissions." Plaintiff claimed he was fired because he refused to falsify records about emissions at a petrochemical plant. Proof of illegal emissions says nothing about whether anyone was asked to make a false report on them.

Testimony might be both legally and factually irrelevant as in *Roise v State*, 7 S.W.3d 225 (TX Ap Austin 1999). At page 237 the state's expert forensic psychologist should have been excluded as both legally and factually irrelevant. His "four-step sexual response analysis is not relevant to any material issue in the prosecution under section 43.26 as alleged. A sexual response is not essential to a prosecution under the statute. Ferrera's testimony about the analysis was not sufficiently tied to the facts of the instant case to aid the jury in resolving a factual dispute."

The case of *Assiter v State*, 58 S.W.3d 743 (Ct. Ap Amarillo TX 2001), gives illustration of two experts striking out on the same several issues. Defendant appealed his conviction for intentionally and knowingly causing bodily injury to each of three children. His two experts were not permitted to testify, and the Court of Appeals explains why that was proper, which we summarize.

Dr. Blakeman's proffered expert evidence for Defendant was not relevant because:

- it would not have rebutted State's witness regarding injuries;
- it did not relate to Defendant's belief as to necessity of spankings;
- testimony as to the later effects on the children and family did not relate to issue of guilt or innocence; and
- the witness did not address the seriousness of the bruising.

Dr. Wall's proffered expert evidence for Defendant was not relevant because:

- it addressed Defendant's capacity to form intent to cause bodily injury, which was not at issue;
- his proposed testimony that Defendant did not abuse children neither defined "abuse" nor addressed the crime charged;
- his testimony as to intent not to abuse or bruise the children was not relevant to crime charged;
- Defendant's historical beliefs about child discipline did not address issue of what force a reasonable person would use in the circumstances;
- expert's opinion as to benefit for children if Defendant were to return home was not relevant to guilt or innocence; and
- besides which it was cumulative of testimony by eyewitnesses.

To assure the relevancy of all your proffered evidence, it is advisable to make a master score card of all factual and legal issues asserted by either party to the dispute. Note how each of yours is to be established, being certain that each expert has a clear notion what is to be proven by her and knows the elements required for such proof. Note how each of the opponents' issues might either be positively disproved or their proof sufficiently neutralized to assure their failure to meet their burden. This master score card serves as the "battle map" to keep abreast of all action in the case and the status on one's "troops," the experts being one's "Special Forces." Good soldiers must understand their strategic mission, know the tactical objective, and master the specific means and actions needed to achieve success. Well prepared and thoroughly instructed experts are also best at impromptu

adjustments to the unexpected obstacle. Having your "command central" battle plan and map well under control gives you greater mastery of the trial.

A. CONTENT OF THE CONCLUSION.

1. CONTENT PER SE NOT CONSIDERED.

Since the jury is to determine the credibility of expert evidence, in considering its admissibility the trial judge's inquiry should focus solely on the underlying principles and methodology, not on the conclusions they generate, that is, the expert's opinion to be given at trial. *Forte v State*, 935 S.W.2d 172 (Ct Ap TX Ft Worth 1996). Thus "content" in this context means the expert conclusion, the proffering party's claim which the opinion supports. As *Gammill v Jack Williams Chevrolet, Inc.*, 972 S.W.2d 713 (TX 1998), states at page 728: "The trial court is not to determine whether an expert's conclusions are correct, but only whether the analysis used to reach them is reliable." The Court of Appeals in *Union Carbide Corp. v Mayfield*, 66 S.W.3d 354 (TX Ap Corpus Christi 2001), states at 363: "[Dr. Hansen's] testimony is reliable because he stated the basis and methodology behind his opinion. Dr. Hanson's experience coupled with his thorough testimony about the methodology he used, demonstrated that the opinions he drew from the underlying data are reliable." He was wrong that plaintiff's flatfootedness was a legal disability. This is an example that a reliable expert can be mistaken. Reliability in law is thus neither reliability in science nor reliability as commonly used by lay people.

However, the trial court is otherwise to consider the opinion in its entirety in order to make evaluations as to its reliability and relevance, and thus its admissibility. As is stated in *Dico Tire, Inc., v Cisneros*, 953 S.W.2d 776 (Ct Ap TX 1997), at page 786: "Reasonable probability is determined by substance and context of the opinion, and does not turn on semantics or on use of particular term or phrase.... The entire substance of the expert's testimony must be examined to determine if the opinion is based on demonstrable facts and does not rely solely on assumptions, possibility, speculation, and surmise."

Though the opinion itself is not to be considered by the judge in the gatekeeper functions, there must be certain qualities to the opinion. Thus in *Mitchell Energy Corp. v Bartlett, et al.*, 958 S.W.2d 430 (Ct Ap TX Fort Worth 1997), one expert never said that appellant's gas wells contaminated appellees' water wells and the other did not say explicitly that it probably did, only that it could have. Nor would the use of magic words alone, "reasonable scientific certitude," establish causation. Unless the expert provides supporting facts, a bare conclusion is not evidence. These things will be covered later.

2. LEGAL LIMITS TO EXPERT OPINION.

This considers the kinds of opinions that experts are required or forbidden to offer. At times experts get away with offering the forbidden. Knowing what these are, and knowing which cases rule against them, can provide an unexpected, golden moment for having the opposing expert disqualified. Likewise, a timely objection could scuttle the opponent's case or be grounds for appeal.

(a) *Questions of Law.*

A rule expressed in many cases is given in *Adamson v Burgle, et al.*, 186 S.W.2d 388 (Civ Ap TX San Antonio 1945), at page 397: "Matters of law are not proper subjects for expert opinion...," which is explained with a quote from Wigmore: "[T]he judge (in theory) needs no assistance on that point, even from a legal witness." The jury would obtain its instructions in the law from the judge, so neither does it need an expert witness on the law. See also *Ledbetter v. Missouri Pacific Railroad Co.*, 12 S.W.3d 139 (TX Ap Tyler 1999), where plaintiff's expert was properly prevented from

telling the court that OSHA was the applicable legal rule in a railroad work related accident. Nor may an expert testify as to which sentence ought to be imposed in a criminal case. *Sattiewhite v State*, 786 S.W.2d 271 (Cr Ap TX 1989). If such were permitted, it would end in a battle of experts on the merits of every possible sentence and the relative values of probation. On the other hand, evidence as to suitability for probation is permitted as in *Peters v State*, 31 S.W.3d 704 (Ct Ap Houston TX 2000).

However, *Harvey v Culpepper*, 801 S.W.2d 596 (TX Ap Corpus Christi 1990), says that an expert may state an opinion on a mixed question of fact and law, as long as the opinion is confined to relevant issues and is based on proper legal concepts. If the expert gave the legal principle or definition, correct or not, one would have run afoul of such cases as *Adamson*. The attorney examining the expert would propound a hypothetical question which contains the correct legal principle or definition. Thus, *Pittsburgh Corning Corp. v Walters*, 1 S.W.3d 759 (Ct Ap TX Corpus Christi 1999), states at page 777: "When asked to state an opinion regarding a defendant's negligence or gross negligence, the witness must be provided with the proper legal standard as a predicate." That was done in the *Pittsburgh Corning* case. See also *Mega Child Care, Inc. v Texas Department of Protective and Regulatory Services*, 29 S.W.3d 303 (Ct Ap TX Houston 2000), at page 309 and the cases cited therein.

Even dressed up as a legitimate expert opinion, if the opinion addresses what a legal ruling should be, it may be excluded. Thus is *Pegasus Energy Group, Inc., v Cheyenne Petroleum Co.*, 3 S.W.3d 112 (TX Ap Corpus Christi 1999), the trial court did not abuse its discretion in excluding the testimony of an expert in oil and gas audits and accounting. The trial judge is quoted at page 133: "[T]he whole gist of this case is the meaning of the [approval clause].... And that's going to be my ruling—a legal decision, and he cannot tell me what my legal ruling should be." Additionally, the expert himself needed help to understand it; thus, its interpretation was not a subject of his speciality.

An expert affidavit in support of a summary judgment motion which "states legal conclusions rather than facts" will "not support summary judgment as a matter of law." See *Clement v City of Plano*, 26 S.W.3d 544 (Ct Ap TX Dallas 2000), at page 552. Nor may an expert testify in support of a defense that the law does not recognize, as was attempted in *Nejnaoui v State*, 44 S.W.3d 111 (Ct Ap Houston TX 2001), at page 117. A psychiatrist was not allowed "to testify as to the meaning of the words 'aware' and 'conscious.'" Trial court confirmed that she had examined Defendant in January 1995 and then asked if she knew his mental condition in August 1995 when the incident occurred. She said she did not and asked to be excused. She was. Defendant contended he was sane but not "aware and conscious" of shooting his wife. The law recognizes no such defense.

Generally a witness may not tell the court what a contract means. Thus a proffered expert in *Akin v Santa Clara Land Co., Ltd.*, 34 S.W.3d 334 (Ct Ap San Antonio TX), was properly excluded at page 339: "In this case, Bliss's testimony was offered to interpret the terms of the lease agreement; however, the construction or interpretation of an unambiguous contract is a question of law for the court." However, a court may permit expert evidence to assist it in determining whether or not a contract is ambiguous. Thus in *Mescalero Energy, Inc., v Underwriters Indemnity General Agency, Inc., et al.*, 56 S.W.3d 313 (Ct. Ap Houston TX 2001), at page 323 it is stated: "Many courts have used expert definitions to determine the meaning of specialized terms before deciding whether an instrument is ambiguous." The court cites three Federal cases in support of the ruling.

(b) *Amorphous Opinions.*

The expert must have an opinion which is subject to both objective challenge and objective support. In *American West Airlines, Inc., v Tope*, 935 S.W.2d 908 (Ct Ap TX El Paso 1996), appellant objected that the expert would be testifying to opinions that could be neither validated nor refuted.

For that and other reasons the trial court sustained the objection and excluded the testimony. For a related discussion, refer to Subsection B, SPECIFIC FIT TO ISSUES IN THE INSTANT CASE, of Section VIII, MISCELLANEOUS INQUIRIES.

Where an opinion is based solely on subjective claims of a litigant, it would be nothing other than the litigant's testimony given through an expert. So in *Waltrip v Bilbon Corp.*, 38 S.W.3d 873 (Ct Ap Beaumont TX 2001), the expert testimony on pain and suffering was dependent solely on Plaintiffs' subjective complaints. At page 882 this is underlined: "However, there was no evidence in the record of any observable injuries to either appellant." Besides Plaintiffs' testimony, it was all lay or expert opinions. The Court then rules: "We believe that the presence or absence of pain, based on the *subjective* complaints of an individual, is not a subject for experts or skilled witnesses alone." [Emphasis in original.]

(c) *Uselessness.*

In *Amis v State*, 910 S.W.2d 511 (Ct Ap TX Tyler 1995), a trust attorney as expert would have reiterated other evidence already in the case, and the trust attorney had found nothing illegal in the accounts. An accountant did not have personal knowledge of decedent's billing practices, nor would the accountant as an expert witness have done anything which the jury could not have done. Neither expert would have shed light on the defendant's state of mind at the time of the murder of which he was accused. In summary, their opinions offered nothing of assistance to the jury.

A common thing making expert testimony useless is that it is not beyond the knowledge and skill of the jury to determine on its unaided own. Human factors experts have been ruled inadmissible for this reason in several cases, such as *Park v Larison and Boles*, 28 S.W.3d 106 (Ct Ap TX Texarkana 2000). There the expert was to explain whether it was reasonable and prudent to let a 15-year-old drive an all-terrain vehicle, a determination ordinary folk make regularly. Generally, superfluous testimony is useless. See also *McGann v State*, 30 S.W.3d 540 (Ct Ap Ft. Worth TX 2000), at page 546, where jury is as qualified as psychiatrist to appreciate "that the average, law abiding citizen would be more vulnerable to entrapment when going through a divorce."

(d) *Contrary to Applicable Legal Rule.*

In *Avila v State*, 954 S.W.2d 830 (Ct Ap TX El Paso 1997), defense expert's proffered testimony on the involuntary nature of defendant's shooting his wife due to reflex action from police training was not relevant. Admittedly, when she, also a police officer, had pointed her gun at him, he picked up his, aimed it at her and fired. However, he did not claim accident or force by another. At page 838 the Court of Appeals concludes "that the trial court properly excluded the [expert] testimony because it was not relevant to the issue of voluntariness, and was not reliable on the issue of mental state." Involuntariness means defendant's actions were not controlled through his own efforts. The expert did not address the legal definition of "voluntariness," which is not the same as an act flowing from free will. "An act is performed 'voluntarily' for purposes of the Penal Code if it is committed without accident, omission, or possession.... In order to be considered voluntary, an act need not be the product of the defendant's free will." Counsel should take care to gear the anticipated expert testimony to the required fine points of the law.

Similarly, in *Yzaguirre v KCS Resources, Inc.*, 47 S.W.3d 532 (Ct Ap Dallas TX 2000), it was not abuse of discretion to reject expert testimony on value of a gas and oil lease. At page 544: "The expert testimony Lessors sought to admit on market value was contrary to the supreme court's definition of market value." Expert had looked at the gas purchase agreement price and not at comparable sales. There may be a law forbidding certain expert evidence in some situation. For example, when a criminal defendant had under oath denied making the writing, expert comparison could not prove the matter. *Zimmerman v State*, 860 S.W.2d 89 (TX Cr Ap 1993). In *Ex parte*

Watson, 606 S.W.2d 902 (TX Cr Ap 1980), writ of habeas corpus was denied in part because petitioner had never denied the writing under oath. His brother said it "looks like" his writing, while the jury could make a comparison on its own.

The expert's method might be established by law. For example, in *Exxon Pipeline Co. v Zwahr*, 35 S.W.3d 705; reversed and remanded, 88 S.W.3d 623 (TX 2002), the expert for Zwahr failed to use the legally required "before-and-after valuation method," while he included as loss to the property owner the enhanced value flowing directly from the purpose of the condemnation. Thus he both failed to use a required method and did use a forbidden method.

In *Doty-Jabbaar v Dallas County Child Protective Services*, 19 S.W.3d 870 (TX Ap Dallas 2000), having given birth, the mother tested positive for cocaine, and a test indicated that the child had been exposed to cocaine *in utero*. Neither parent attended the court hearing nor did the Indian tribe intervene when notified. A social worker, as sole witness, testified as an expert in support of termination, which required all evidence be beyond a reasonable doubt, including the expert's qualifications. Though relevant Federal rules were not binding on state courts, the Court of Appeals applied them as had other states. The expert did not qualify specifically with "substantial education and experience" in Indian culture and childrearing practices. Thus, neither the legally correct expertise nor the required degree of proof had been offered.

In Section V, Sub-section C, the case of *Kirkpatrick v State* is discussed wherein it was ruled that, once the jury had enough specialized knowledge from the expert's testimony in order to evaluate the evidence properly, the expert's testimony was no longer needed, so no further expert testimony should be allowed. That would seem to say that, since admissibility of expert testimony is rooted primarily in its ability to assist the fact finder, anything which goes beyond that assistance is off limits. That is a salutary rule which should be universally followed. Maybe the courts will formulate a new guideline for expert witnesses: Get to the point, then get out—or be shown out.

On the flip side of this are legal standards for elements of certain expert evidence. Be sure your expert knows of any which her evidence must meet. In *Huckaby v A. G. Perry & Son, Inc.*, 20 S.W.3d 194 (TX Ap Texarkana 2000), there was question whether evidence of previous accidents at the same intersection could be admitted. At page 202 it is said that "the witness's opinion that the occurrences were similar must be based upon the legal requirements for similarity." However, there was no indication the witness was aware of such requirements. The movant for summary judgment must state the correct legal requirements by specifying the essential element or elements for which there is no evidence. The non-moving party must then show it can meet those elements with relevant and reliable evidence. The stated elements become a legal yardstick for any required expert evidence. In *Hight v Dublin Veterinary Clinic, et al.*, 22 S.W.3d 614 (TX Ap Eastland 2000), plaintiffs' expert failed on all counts regarding a reliable foundation.

Although an opinion might be inadmissible if offered in your case in chief, it might be admissible as rebuttal. Rebuttal testimony by an expert "that those around K.B. and appellant could not detect a sexual relationship by mere observation," which would have been inadmissible otherwise, replied to evidence relied on by Defendant: "All four witnesses testified that they did not notice anything out of the ordinary."

A rule might require a certain qualification of an expert witness. In *Ellis v State*, 86 S.W.3d 759 (Ct Ap Waco TX 2002), it was error to permit an officer not certified in administering HGN test to testify to the results. It was thus irrelevant whether his performance was reliable. However, due to a small litany of other evidence of DWI, the error was harmless. See Section VIII, Sub-section F, Item 4, Negligence and Standards of Care, for related discussion of rules on qualifications of expert witness in that regard.

(e) *Testimony Regarding Other Witnesses.*
One witness may not testify to the credibility or qualifications of another witness. See *Kirkpatrick v State*, 747 S.W.2d 833 (Ct Ap TX Dallas 1987). Qualifications are the province of the trial judge and credibility that of the jury, or of the judge sitting as trier of fact. This kind of "expert opinion" occurs frequently in questioned documents, as when one of the authors had an opposing expert state such in an affidavit submitted to the court as proposed testimony to be given in a qualifications hearing. The opposing expert asserted that the author was unqualified because of her unique knowledge and experience in a different expertise which he did not possess. Besides violating the rule stated in *Kirkpatrick*, the man was offering opinion evidence on a topic in which he could never have qualified as an expert, being admittedly ignorant of it. The attorney must forcefully object to such illicit testimony, indeed turning it against such expert as showing him unqualified, overstepping his proper area of expertise and endeavoring to create an irrelevant and unfair prejudice in the mind of the court. There are codes of ethics forbidding professionals, and expert witnesses are presumably professionals, from speaking personally derogatory remarks of each other.

Vasquez v State, 975 S.W.2d 415 (Ct Ap TX 1998), was a conviction for sexual abuse of a child. Statement validity analysis was considered to be testimony on the credibility of a witness. However, it could be admissible in one situation as given at page 418: "Specific testimony that statement validity analysis indicates that the person's statement is in fact an account of real events is usually inadmissible, and may be adduced only to rebut specific testimony that such analysis indicates that the statement is not an account of real events." *Vasquez* cites *Hitt v State*, 53 S.W.3d 697 (Ct Ap Austin TX 2001), which itself states at page 707: "An expert witness may not, however, testify directly that a particular witness is truthful, or that a class of persons to which the witness belongs is truthful." See also *Aguilera v State*, 75 S.W.3d 60 (TX Ap San Antonio 2002), which reversed and remanded conviction for child molestation because of impermissible testimony regarding truthfulness of child victim.

No matter how expressed, testimony regarding credibility is inadmissible whatever synonym for fibbing is used. Defendant's expert in *Heidelberg v State*, 36 S.W.3d 668 (Ct Ap Houston TX 2001), was properly excluded as explained at page 676: "Dr. Gorsuch was to give his opinion as to the truthfulness of the complainant and her allegations. Whether he would ultimately testify the complainant was 'lying' or providing 'misinformation' is merely a matter of semantics. His opinion under either theory would be the complainant was untruthful, thereby supplanting the jury's role of determining the credibility of the witness." Likewise, whatever the expertise under which it is given, it is still inadmissible as in *Green v State*, 55 S.W.3d 633 (Ct Ap Tyler TX 2001). At page 638 a list of inadequacies in statement analysis ends with: "The trial court held that the issue was one of credibility couched in psychiatric or pseudo-psychiatric terms."

Many cases have discussed the technical reasons why polygraph evidence has been inadmissible. The case of *Perkins v State*, 902 S.W.2d 88 (Ct Ap TX El Paso 1995), explains why it is inadmissible *per se*. First, its exclusion bears equally on both the state and the defendant. Second, there is the superior social benefit of having the trier of fact decide an issue after all evidence has been presented, whereas the polygraph, if completely reliable, would decide both the issue of credibility of witnesses and the guilt or not of the defendant. Thus the exclusion is constitutionally permissible.

3. PROBATIVE VALUE NOT OUTWEIGHED BY OTHER FACTORS.

Rule 403 lists factors which ought not outweigh the probative value of expert testimony. Thus *Brown v State*, 881 S.W.2d 582 (Ct Ap TX Corpus Christi 1994), states at page 587: "Under Rule 702, the

proponent of novel scientific evidence must prove to the trial court by clear and convincing evidence and outside the jury's presence, that the proffered evidence is relevant. If the trial court is so persuaded, then it should admit the evidence for the jury's consideration, unless the trial court determines that some factor identified in rule 403 outweighs the probative value of the evidence." *Hicks v State*, 860 S.W.2d 419 (TX Cr Ap 1993), and many other cases have said substantially the same thing. These factors are:

- Danger of unfair prejudice;
- Confusion of issues;
- Misleading the jury;
- Considerations of undue delay; and
- Needless presentation of cumulative evidence.

Fields v State, 932 S.W.2d 97 (Ct Ap TX Tyler 1996), held that the probative value of expert testimony as to drug trafficker patterns and characteristics was not outweighed by undue prejudice to defendant. The expert never said that defendant was a dealer. That may have been a bit ingenuous of the Court of Appeals, since the expert said defendant fit all the patterns and characteristics. It is like saying an expert may testify that only a duck looks, walks, sounds and lays eggs in a certain way and that this creature looks, walks, sounds and lays eggs like a duck, just so long as the obviously intended conclusion is not stated.

Related to consideration of the probative value not being outweighed is consideration of the clarity with which the expert can explain the theory and methodology. Thus one of many factors weighing against the expert in *Fowler v State*, 958 S.W.2d 853 (Ct Ap TX Waco 1998), at page 864, was the fact that "whether or not the underlying theory and technique could be clearly explained is also unknown, considering that no attempt was made." In *Mata v State*, 13 S.W.3d 1 (Ap San Antonio TX 1999); remanded, 46 S.W.3d 902 (Ct Cr Ap TX 2001), it is said the expert failed to explain the theory with any clarity. However, even if the expert can give the most clear and convincing explanation, it is of no persuasive value to the trial judge if the attorney calling the witness fails to ask the right questions to elicit the explanation. Clarity of explanation is essential in avoiding jury confusion, confusion being best defined as the jury's finding for your opponent.

Hepner v State, 966 S.W.2d 153 (Ct Ap TX Austin 1998), held that random match probability evidence was properly admitted as not being outweighed by the danger of unfair prejudice and jury confusion.

In *First Southwest Lloyds Insurance Co. v MacDowell*, 769 S.W.2d 954 (TX Ap Texarkana 1989), the insurance company wanted to bring in evidence of prior fires to cast suspicion on the claimant. However, it could not establish a sufficient nexus. Still, the trial court could have been more stringent. At page 958 the Court of Appeals says: "Although some courts have allowed the direct admission of all data upon which an expert relies to form an opinion, a much better argument can be made against the admission on direct examination of unauthenticated underlying data." Rule 402 is referenced as providing for the exclusion of relevant evidence "if its probative value is substantially outweighed by the danger of unfair prejudice, confusion of the issues, or misleading the jury, or by considerations of undue delay, or needless presentation of cumulative evidence." Then the Court says: "Here, the trial court *could have excluded* the proffered evidence" for one of such reasons. [Emphasis in original.]

B. OBJECTIVITY OF THE CONCLUSION.

1. BIASED BY NATURE OF PROBLEM PRESENTED TO EXPERT.

The District Court in *Viterbo et ux. v Dow Chemical Co.*, 646 F.Supp. 1420, states at page 1424 that

the expert diagnosed plaintiff without testing him: “Thus, a preconceived theory has already been developed.” The Court of Appeals in *Viterbo*, 826 F.2d 420, states the same thing in stronger terms at page 423, footnote 2: "We agree that an expert who forms an opinion before he begins his research is biased and lacking in objectivity." At page 424 this principle is applied to the *Viterbo* case: "Indeed, Dr. Johnson’s testimony is no more than Viterbo’s testimony dressed up and sanctified as the opinion of an expert."

It is best not to disclose to an expert being retained which party claims what. An expert has to contend with the natural human temptation to agree with one’s client. As the old saying has it, he who pays the piper calls the tune. The police officer testifying as an accident reconstruction expert in *Sciarrilla v Osborne*, 946 S.W.2d 919 (Ct Ap TX Beaumont 1997), is said at page 921 to have conquered this tendency: “Young learned how to forego what people tell him happened in an accident and to base his conclusion on the physical evidence left there at the scene.” Like Caesar’s wife, one would want to avoid even the appearance of impropriety. It is best to insulate your expert as much as possible from the contentions, as well as the contentiousness, of the parties until after a firm opinion has been rendered. If you can establish that the opposing expert knew from the start which opinion would result in the earnings potential of deposition and trial fees, a doubt might be created concerning the objectivity and independent nature of the opinion.

The term “bias” does not necessarily mean a reprehensible attitude, for it could mean inadvertently misdirected or tending to predetermine matters. If one asks the expert the wrong question, a bias is created which can be the basis for a successful appeal. In *Doty-Jabbaar v Dallas County Child Protective Services*, 19 S.W.3d 870 (TX Ap Dallas 2000), the witness was asked to address the wrong question: “In this case, the State never inquired of its expert whether the mother’s continued custody of the child would likely result in serious emotional or physical damage to the child; instead, the State asked the caseworker if she was satisfied ‘that it would be in the child’s best interest to terminate the rights’ of appellant.” At page 877. That was the wrong standard for such cases, and so the proof was legally insufficient, contributing to the reasons for reversal and remand. One would want to be sure the expert was asked to address an issue of fact which was both relevant and legally sufficient to prove one’s case, while being sure to bring it home to the other side if it fails to do so.

One would not, however, want to argue over an inconsequential distinction. In *Foust v Estate of Roland Walters, et al.*, 21 S.W.3d 495 (TX Ap San Antonio 2000), the question, whether it was an impermissible material change in the expert’s opinion from saying what his standard was to what a reasonably prudent aerial applicator would do, was “merely a skirmish in semantics.” At page 504.

2. LITIGATION-ORIENTED EXPERT.

(a) *Police labs and their reports.*

Law enforcement laboratory reports do not come under the hearsay exception for admissibility of government administrative records. If the person generating the report is not available, *Cole v State*, 839 S.W.2d 798 (Ct Cr Ap TX 1992), held that the report may not be admitted into evidence through the testimony of another person.

In *Aguilar v State*, 887 S.W.2d 27 (Ct Cr Ap TX 1994), at page 28 the Court of Criminal Appeals cites *Cole v State* to the effect that police chemists are law enforcement personnel. “Accordingly, their reports prepared out of court, if offered to prove the truth of matters asserted therein, may not be received in evidence over a hearsay objection upon the ground that such reports are public records exempted from the hearsay rule.” At page 30, the Court states that such reports are deemed offered for a limited purpose only if the offering party states so, “and that a hearsay

objection under *Cole* should be sustained if the laboratory report is instead offered without limitation."

In *Aguilar* the hearsay rule of *Cole v State* concerns the police lab reports themselves and does not extend to the expert opinion which relies on them. It is said at page 29: "Even if the expert relies in whole or in part upon information of which he has no personal knowledge, communicated to him at or before the time he testifies, the admissibility of his opinion is not affected 'unless the court determines that he does not have a sufficient basis for his opinion.'" [Footnote references omitted.]

(b) *Do the bases for opinion have any non-litigious uses?*

Law enforcement laboratories are considered necessarily adversarial in nature. At page 809 in *Cole v State*, the Court asserts: "Substantial attention should be given to the adversarial context in which the relevant tests were conducted.... A DPS laboratory is a uniquely litigious and prosecution-oriented environment." The Court cites Federal cases to the effect that the "relevant enquiry is whether information was recorded as part of routine procedure in non-adversarial setting... where maker has no motive to fabricate."

Throughout the various case reports three types of testing are discussed without making an explicit distinction. Some apparently conflicting rulings might well be resolved by applying the distinction. One kind of testing is that done to establish a scientific theory. A second kind of testing is done to develop tools and methodologies, protocols and guidelines for applying the theory. A third kind of testing is the application of such tools, methods, protocols and guidelines to a particular practical problem in a specific situation. The first and second are, it seems, what courts hold to be unacceptable if done in a forensic investigation specifically for court purposes. The body of knowledge on which the expert relies and the methodologies employed should be pre-existing and established. This pre-existing nature is best proved by showing that the knowledge and methods have long had non-litigation applications.

The third kind of testing is what the expert is expected to do in the case. When it is not done reasonably completely, as when only defendant's gas wells were tested for being sources of contamination in the case *Mitchell Energy Corp. v Bartlett, et al.*, 958 S.W.2d 430 (Ct Ap TX Fort Worth 1997), that lack of testing is criticized. *Andrade v State*, 6 S.W.3d 584 (TX Ap Houston), applies the same reasoning to a person. Having listed several lacking qualifications of the proffered expert in low vision, at pages 591-592 the Court concludes: "Because she had not conducted any tests upon appellant, we agree with the trial court's conclusion that Saathoff was not qualified to offer an opinion on whether appellant could have read the statement signed by him at the police station."

Minus a clear statement from courts in this regard, the authors submit that this threefold distinction of testing is correct.

(c) *Theory Formed for Litigation.*

In *Roise v State*, 7 S.W.3d 225 (TX Ap Austin 1999), the Court says of the state's forensic psychologist at page 237: "His testimony was a subjective belief or unsupported speculation not relying upon the principles involved in the field of his claimed expertise. The fact that an opinion was formed solely for the purpose of litigation does not automatically render it unreliable. However, opinions formed for the purpose of testifying are more likely to be biased towards a particular result."

3. BIAS SHOWN BY SELECTING ONLY SUPPORTIVE RESEARCH/DATA.

Merrell Dow Pharmaceuticals, Inc., v Havner, 953 S.W.2d 708 (TX 1997), at page 719, offers an example of this: "A physician, even a treating physician, or other expert who has seen a skewed data

sample, such as one of a few infants who have a birth defect, is not in a position to infer causation."

It would be effectively the same thing were the expert to seek data only from sources of immediate concern. Thus in *Mitchell Energy Corp. v Bartlett, et al.* the expert did not test gas wells in the area other than defendant's, thus he did not know whether the chemical "signature" which he identified was unique to the gas in defendant's wells. One suspects much testimony on purported uniqueness is similarly of a single sample population. Some handwriting examiners assert one writer in all the world wrote an actual, not metaphorical, signature, because no one else has the same identifying traits. Yet neither judge nor attorney challenges the lack of considering any other suspect than the one that the examiner's customer picked out as the culprit.

4. BIAS SHOWN BY IGNORING NON-SUPPORTIVE RESEARCH OR DATA.

Maybe on the assumption that undesirable data might be ignored, *Purina Mills, Inc., v Odell*, 948 S.W.2d 927 (Ct Ap TX Texarkana 1997), at page 934 strikes a note of caution concerning research and testimony conducted and formed for purposes of testimony. That fact does not render it inadmissible, but it is suspect of being biased. On the other hand and in the same case, if research is not conducted for purposes of litigation or if the research does not cover all applicable instances, the expert is seen as failing to take account of all data, favorable or not.

5. ASSURING YOUR EXPERT'S OBJECTIVITY.

Two courses of action can be taken:

(a) Review the above four numbered Items to be sure none of them apply. Cross-examining your own expert during pretrial preparation will uncover any weaknesses in the evidence, hone the expert's presentation, and warm you up to go after the opposing expert.

(b) Having a second expert run an independent test should confirm a correct opinion. Thus in *Roberson v State*, 16 S.W.3d 156 (TX Ap Austin 2000), the State's DNA expert used one of two test methods, and a private lab expert used the other with his results confirming hers. Defense used another private lab, but did not offer results, implying a third confirming opinion.

C. COMPREHENSIVENESS OF THE OPINION: CAUSALITY.

All expert opinion in some way is opinion relative to cause. If there is no responsibility for the act or thing which caused the injury complained of, there can be no responsibility in justice or equity to redress the injury. Thus in *Broders, et al., v Heise*, 924 S.W.2d 148 (TX 1996), at page 153 the bottom line as to why plaintiff's expert evidence at trial was found inadmissible is stated quite simply: "Dr. Condo's medical expertise is undoubtedly greater than the general population, but the Heises did not establish that his expertise on the issue of cause in fact met the requisites of Rule 702."

Nor is it enough to show that there was an injury and the way in which it occurred, one must show the agent who caused it to happen that way. Thus in *Duff v Yelin, et al.*, 751 S.W.2d 175 (TX 1988), at page 177, the Supreme Court replies to the dissenting opinion on the Court of Appeals: "Finally, the dissent states that because it was undisputed that the injury to Duff's elbow was caused by some external pressure to the elbow area, the medical reason for the trauma was established. Although this statement is, by itself, correct, it ignores the principal reason behind this case going to trial—to affix liability upon the negligent party. Just because the jury knew that pressure to the elbow caused Duff's injury, this knowledge in no way enabled them to find out *how* this pressure was applied, and, more importantly, who was responsible for the event in the first place." [Emphasis in original.]

Courts distinguish between "general causation" and "specific causation." *Neal v Dow Agrosciences LLC, et al.*, 74 S.W.3d 468 (TX Ap Dallas 2002), at page 472 quotes *Merrell Dow Pharmaceuticals, Inc., v Havner*, 907 S.W.2d 535 (Ct Ap TX 1995), extensively and then applies the definitions to show why the *Neal* expert was properly excluded. "General causation is whether a substance is capable of causing a particular injury or condition, while specific causation is whether a substance caused a particular individual's injury." Only establishment of the latter can be the basis for liability, otherwise we would all be always legally liable since everything we do and have is in some way generally, that is potentially, a cause of some kind of injury to someone. Since direct and reliable proof is not always possible, a party may demonstrate significantly increased risk due to exposure to a substance. "Such a theory concedes that science cannot tell us what caused a particular plaintiff's injury. It is based on a policy determination...." We believe there is a wisdom in society's not permitting significantly increased risks to the general population just because science has not yet discovered the damage caused, which always happens too late for somebody; but recovery for damages is properly and as wisely tied to specific evidence of responsibility for specific injury. In *Neal*, plaintiff's expert did not establish general causation, and thus increased risk, because the published research he relied on did not demonstrate the link he claimed between the chemical in question and the child's brain tumor.

In a high stakes case, be certain that your expert states the entirety of expert opinion on cause, such as all issues, premises, data and inferences, no matter how inconsequential or inherently self-evident an item might seem to be. In *Gammill v Jack Williams Chevrolet, Inc.*, 972 S.W.2d 713 (TX 1998), this critique is offered at page 719: "The statement in Huston's affidavit that Deborah's seat belt 'did not prevent her incapacitating injuries from the impact and occupant compartment intrusion' merely states the obvious; Huston's affidavit does not say that Deborah's seat belt *should have* prevented her injuries." [Emphasis in original.] To state the latter is to state the blatantly obvious. What else are seat belts meant to do? So have your expert state the blatantly obvious.

The act or omission responsible for the injury is the producing cause. "Producing cause" is defined as an efficient, exciting, or contributing cause, which in the natural sequence, produced the injuries or damages complained of. "There can be more than one producing cause. The test is whether the defendant's act or omission was a substantial factor in bringing about an injury which would not have otherwise occurred." *Checker Bag Co. v Washington*, 27 S.W.3d 625 (Ct Ap TX Waco 2000), at page 635.

Texas courts are on the same wave length as Federal courts when it comes to proving causality. Thus it is stated in *Maritime Overseas Corp. v Ellis*, 886 S.W.2d 780 (Ct Ap TX Houston 1994), at page 786: "In any event, Texas law is generally consistent with federal law regarding expert testimony on causation." For about as extensive a treatment of expert evidence regarding causality as one could wish for, see *In re Paoli*, 706 F.Supp. 358 (E.D. PA 1988); reversed and remanded, 916 F.2d 829 (3 Cir 1990); on remand, 811 F.Supp. 1071 (E.D. PA 1992); affirmed in part and reversed in part, 35 F3 717 (3 Cir 1994).

See *Coastal Tankships, U.S.A., Inc., v Anderson*, 87 S.W.3d 591 (Ct Ap Houston TX 2002), for an excellent example of how various aspects of requirements for expert evidence of causality are applied. The discussion in Section XI suggests applying several of the principles to handwriting identification.

1. WERE ALL REASONABLY POSSIBLE CAUSES CONSIDERED?

The Supreme Court in *E.I. du Pont de Nemours & Co., Inc., v Robinson*, 923 S.W.2d 549 (TX 1995), at page 559 asserts: "An expert who is trying to find a cause of something should carefully consider

alternative causes. *In re Paoli,* 35 F.3d at 758-59. Dr. Whitcomb's failure to rule out other causes of the damages renders his opinion little more than speculative." To do this the expert should know all of the reasonably possible causes and be able to give some positive reason why each of those rejected by the expert opinion was rejected.

Determination of cause must be specific, as expressed in *Kumho Tire Co., Ltd., et al., v Carmichael, et al*., 526 US —, 143 L.Ed.2d 238, 119 S.Ct. 1167 (1999) : "The relevant issue was whether the expert could reliably determine the cause of *this* tire's separation." [Emphasis in original.] The expert made assumptions and had a list of factors which did not support his opinion. Reading the case report, any reasonable person would conclude that the tire should have been taken out of service, that it was irresponsible to have driven the vehicle with such a tire. The expert's proof of causation seemed to have been a negative one. He reasoned that, since separation and overdeflection did not cause the blowout and thus the accident, a manufacturing defect must have. If his opinion had prevailed through the United States Supreme Court, the fact that any product eventually wears out could have become *de lege* a manufacturing defect.

Nissan Motor C., Ltd., v Armstrong, 32 S.W.3d 701 (Ct Ap TX Houston 2000), took a different view at page 709: "Citing authorities from other jurisdictions, Nissan argues that a manufacturer has no duty to design products that will never wear out." However, after six years and 93,000 miles, the jury could infer a manufacturing defect in the worn throttle dust boot. One might take to heart the lesson of Oliver Wendell Holmes' poem, "The One-Hoss Shay, or The Deacon's Masterpiece; a Logical Story." (*Bryant*) Each part of the shay was made equally strong, so that 100 years later to the date of its making it went from still perfect to total disintegration. Under *Nissan*, the Deacon might have been disinterred and sued for failure of the shay to go another 100 years. Fortunately, Supreme Court in the report at 145 S.W.3d 131 reversed the Court of Appeals, pointing out that Armstrong relied on almost 800 incidents of rapid acceleration, only four of which were properly similar, and that a portion of the alleged faulty assembly had been disassembled and discarded before any inspection of it could have been made.

The same case indicates that an expert might get away with failing to recognize all likely causes and even with having insufficient data. At page 707, Armstrong's expert "said that in his opinion Ms. Armstrong's accident had been caused either by a cruise control defect or a throttle cable failure." But at page 709 the Court says: "The evidence showed that Ms. Armstrong's accident occurred as the result of one of two possible causes: (1) her inadvertent use of the gas pedal instead of the brake pedal, or (2) a malfunction in the car's accelerator system caused by a defective cruise control or a defective throttle control component." That and the insufficient data were said to go to the weight of the opinion. The insufficiency apparently weighed very little, since Armstrong won at trial and on appeal, but not with the Supreme Court which remanded for a new trial.

In *Mitchell Energy Corp. v Bartlett, et al.*, 958 S.W.2d 430 (Ct Ap TX Fort Worth 1997), at page 447, the expert is quoted: "How many different possibilities exist for a given circumstance?... You find all the information you can about each one of these hypotheses or possibilities, and evaluate them, or reduce them to one that is the highest probability... [a] scientific probability." Unfortunately, that is exactly what that expert did not do. He provided no evidence since he had relied on analysis tables which did not indicate the presence of a sulfur compound, the contaminating chemical. Nor did he rule out a sulfur compound made by bacteria. At page 448 the Court of Appeals says: "An expert who is trying to find the cause of something should carefully consider and rule out alternative causes. Dr. Bassett's failure to rule out other causes of the presence of hydrogen sulfide in appellees' water renders his opinion 'little more than mere speculation.' Mere guess or conjecture is not probative evidence. [Citations omitted.]"

Marvis v State, 3 S.W.3d 68 (TX Ap Houston 1999), shows how by using the opponents' expert one can negate their victory. On cross-examination, the State's medical expert said each of three shots to the head from the second shooter would have killed decedent within a minute, but three to the abdomen from defendant would not have killed him if medical care were given immediately. In layman's terms, we might say defendant's companion caused the death, while defendant only cooperated in the killing. On that basis, the Court of Appeal reversed and granted acquittal for conviction on murder as principal and remand for new trial on murder as party. The object lesson is to explore all causality your expert considered before trial, to know whether some necessity is left out or if there is something supportive of the opposing case. Consider exploring on cross-examination all causality the opposing expert considered if you think something necessary to their case may have been omitted or something may have been included which benefits your case. In civil cases, include the exploration in deposition. However, see discussion in Section XI, Subsection A, CASE CITATIONS.

Be careful when challenging the opponent on likely causes not considered. In *Helena Chemical Co. v Wilkins, et al.*, 18 S.W.3d 744 (TX Ap San Antonio 2000), Helena suggested alternative causes for problems with its seed. They were, one, overplanting (but that was done at Helena's recommendation) and, two, prior cotton crops (which was required by the local crop-management office, while neighbors did it to no bad effect). Helena's alternative causes were eliminated, strengthening appellees' case. However, there seems to be some conflict on the issue, as in *Sloan v Molandes, et al.*, 32 S.W.3d 745 (Ct Ap Beaumont TX 2000). At pages 748 and 749, physician's expert testimony was "that Dr. Sloan violated the standard of care by continuing steroid therapy beyond December 1995," thus elevating patient's triglycerides that ultimately gave her pancreatitis, while worsening her diabetes and cholesterol level. He had failed to check her triglyceride levels during the therapy, and the danger was foreseeable as a known medical fact. This evidence was not insufficient merely because "the evidence also reflects that there are other things that possibly could have caused those injuries." Plaintiff was not required to rule out all causes or prove medical negligence was "a more likely cause" but only establish the treatment "was a substantial factor in causing her injuries." Perhaps the difference is whether the evidence of the one cause is sufficient in itself or is based on proving no other cause was operative. Therefore, play it safe and systematically consider all reasonably likely causes.

The case *Cruz v Paso Del Norte Health Foundation*, 44 S.W.3d 622 (Ct Ap TX 2001), suggests a solution to the statement by some courts that all causes must be considered and by others that all need not be. At page 630 it states: "[A] plaintiff need not establish causation in terms of medical certainty, nor is she required to exclude every other reasonable hypothesis; reasonable inferences may be drawn from the evidence." Then at page 632: "As to causation, if there are other plausible causes of injury that could be negated, the plaintiff must offer evidence excluding those causes within reasonable certainty." The solution might lie in the difference between a cause which is merely hypothetical and one which has credible, established evidence to suggest it was operative.

It is best for your expert to set forth all reasonable causes, and better than best to have opposing experts agree. In *State Farm Lloyds v Mireles*, 63 S.W.3d 491 (TX Ap San Antonio 2001), experts for both sides agreed on only four possible causes of soil heave in a foundation. See also *Nissan Motor Co., Ltd. v Armstrong*, 145 S.W.3d 131 (TX 2004), and *Ford Motor Co. v Ridgway*, 135 S.W.3d 598 (TX 2004), on need to identify a specific defect as cause and to rule out other possible causes.

Though this Item is more than long enough to make the point, an especially reassuring case can end it. In *Tarrant Regional Water District v Gragg, et al.*, 43 S.W.3d 609 (Ct Ap Waco TX 2001),

two hydrologists for Appellees considered the only two possible causes for flood damage. "There was no credible evidence that the cause of the flood conditions was other than mother nature or the Reservoir. The hydrologists ruled out mother nature and found the reservoir to be the cause." Thus at least this once, to the reassurance of all her children, Mother Nature was exonerated, even by the Court of Appeals in Waco.

2. WHEN EXPERT TESTIMONY AS TO CAUSALITY IS REQUIRED.

Plaintiff in *Compugraphic Corp. v Morgan*, 656 S.W.2d 530 (Ct Ap TX Dallas 1983), was qualified to testify to her state of health but not to the cause of her illnesses, which required expert medical evidence. So also *Glenn v C & G Electric, Inc*., 977 S.W.2d 686 (Ct Ap TX Fort Worth 1998), which held at page 690 that exclusion of plaintiff's medical records was error but that it was not reversible error, one of three reasons being that "plaintiff must *prove* that the defendant's negligence is the proximate cause of his injury. To guide the jury, the causal links must be proved by the testimony of a medical expert." [Emphasis in original.] By contrast, in *McIntyre v Smith*, 24 S.W.3d 911 (Ct Ap TX Texarkana 2000), expert evidence established that improper insertion of a catheter into decedent's vein was the proximate cause of death. The same case, at page 915, also requires that "the expert must explicitly state the standard of care and explain how the defendant's acts met or failed to meet that standard." Yet, how many defendants have lost to generalizations or mere assertions?

In the case *Duff v Yelin, et al*., 751 S.W.2d 175 (TX 1988), at page 176 defendant doctor gave the only expert testimony as to causality, saying there were two possible causes to defendant's ulnar nerve injury. However, he refused to say either cause was a reasonable medical probability, so the Supreme Court reiterated: "[W]e still embrace the principle that a jury issue should not be submitted when it is based merely upon speculation and conjecture." At page 177 the Court cites its decision in *Lenger v. Physician's General Hospital, Inc.*, 455 S.W.2d 703 (TX 1970), where it "identified the following circumstances under which the trier of fact may decide the issue of causation:

"(1) when general experience and common sense enable a layman fairly to determine the causal relationship between the event and the condition;

"(2) when scientific principles, usually proved by expert testimony, establish a traceable chain of causation from the condition back to the event; and

"(3) when probable causal relationship is shown by expert testimony."

In rare occasions negligence may be shown on basis of the doctrine of *res ipsa loquitur*. In *Steinkamp v Caremark*, 3 S.W.3d 191 (TX Ap El Paso 1999), the fact that a nurse left the tip of a catheter in plaintiff's arm met both requirements:

(1) the character of the accident is such that it ordinarily would not occur without negligence; and

(2) defendant had management and control of instrumentality causing the injury.

In such cases, other causes need not be ruled out, but the preponderance of the evidence should allow the jury to make a reasonable finding. Otherwise, *Steinkamp* states that generally expert evidence is needed to prove medical negligence, though "scientific enlightenment is not essential for the determination of an obvious fact." Also, *Blan v Ali*, 7 S.W.3d 741 (TX Ap Houston 1999), in footnote 5 at page 748 states: "In a medical negligence case, proximate cause is an element that ordinarily must be proven by expert testimony." Presumably, if one is attempting to prove what generally requires expert evidence but is going a different route, one must be ready to defend the basis for the legal exception. Prudence would suggest avoiding the exception if possible, since the norm here, as is often the case, provides the greater safety and requires the lesser effort.

Counsel should consider whether a special circumstance might require expert testimony. For

example, *Amerada Hess Corp. v Wood Group Production Technology*, 30 S.W.3d 5 (Ct Ap Houston TX 2000, at page 11 states: "Questions regarding the reasonableness of a settlement in most personal injury cases are questions upon which the trier of fact must be guided solely by expert testimony. An expert's opinion testimony can defeat a claim as a matter of law." Lest parties be tempted to think judges and juries might be told, rather than convinced, what to decide, the Court added: "However, it is the basis of the expert witness's testimony, and not his qualifications or bare opinions alone, that can settle an issue as matter of law." [Citations omitted.]

The Supreme Court in *Nissan Motor Co., Ltd. v Armstrong*, 145 S.W.3d 131 (TX 2004), stated that in all cases of vehicle accidents where there was rapid acceleration, "we have consistently required competent expert testimony and objective proof that a defect caused the acceleration." 2004 Tex. LEXIS 737, at *9. Whether or not this rule applies to all cases of alleged liability in product design, maybe it should. At least a defense attorney could try arguing the point as an application of the principle from vehicle cases to other products.

3. REQUIREMENTS FOR A REASONABLE PROBABILITY.

Something beyond mere possibility is required. *Duff v Yelin, et al.,* states in 721 S.W.2d at page 370: "In a medical malpractice case, the proof must establish a causal connection without the use of conjecture or speculation. The testimony must show more than a mere possibility." The same is stated in *Maritime Overseas Corp. v Ellis*, 886 S.W.2d 780 (Ct Ap TX Houston 1994), at page 786, where the Court is quoting a previous case decision: "Causal connection... must rest in reasonable probabilities; otherwise, the inference that such actually did occur can be no more than speculation and conjecture."

Merrell Dow Pharmaceuticals, Inc., v Havner, 907 S.W.2d 535 (Ct Ap TX 1995), at page 541 states that "reasonable probability" is defined as "testimony predictive of what will happen in the future... results reasonably to be anticipated." It must be more than coincidence, otherwise it is conjecture or speculation. Mere possibility does not do it, but it must be more likely than not in absence of other reasonable causal explanations. It then quotes the *Duff* Court: "[A] possible cause only becomes 'probable' when in the absence of other reasonable causal explanations it becomes more likely than not that the injury was a result of its action. This is the *outer limit of inference* upon which an issue can be submitted to the jury." [Emphasis in original.] The *Merrell* Court also states three cases in which causation may be found by the trier of fact: (1) "general experience and common sense" permit it; (2) "a sharp categorical natural law" holds "that a result is always directly traceable back to a particular cause;" and (3) expert testimony shows a "reasonable probability." To emphasize the need for substantive testimony, the Court states at page 542: "Reasonable probability cannot be created by the mere utterance of magic words by someone designated an expert." The Supreme Court in *Merrell* also said that magic words alone would not do.

The opinion must be accompanied by hard data by which the jury can test its credibility. *Faries v Atlas Truck Body Mfg. Co.*, 797 F.2d 619 (8 Cir 1986), states at page 623: "The accident report contained very little physical data or evidence to support the statement describing the cause of the accident.... Nor was there any method for checking or corroborating the accident report, and it was impossible for the jury to evaluate its trustworthiness." The report should not have been admitted into evidence. Additionally, all relevant data must be considered, a failing of Plaintiff's expert in *Yard v DaimlerChrysler Corp.*, 44 S.W.3d 238 (Ct Ap TX 2001). He did not consider other factors beyond the air bag's working properly or not, such as vehicular speed and use of the seat belt, in his calculations of fatality rates between accidents where the air bag deployed and where it did not.

Proof must be complete. In *Morgan v Compugraphic Corp.*, 675 S.W.2d 729 (TX 1984), at page

730, the Supreme Court holds that plaintiff "was required to prove a causal nexus between her injuries and her exposure to chemical fumes." It was not enough to prove that she was exposed to the fumes. The legal guideline is given at page 731, into which we insert brackets with the elements involved in *Morgan*: "Thus, at trial the plaintiff must establish two causal nexuses in order to be entitled to recovery: (a) a causal nexus between the defendant's conduct [manufacturing this machine] and the event [plaintiff inhaling these fumes] sued upon; and (b) a causal nexus between the event [plaintiff inhaling these fumes] sued upon and the plaintiff's injuries [her physical ailments]." Assess your expert's proposed evidence on causation to be sure that each causal nexus required is covered and that the coverage meets both the legal and technical requirements for that kind of scientific proof. Dissect the opposing expert's evidence on causation in the same way, and, if you find a missing or inadequate nexus, hope that by the time for trial no one on the other side becomes as astute and conscientious as you are.

For its completeness, the expert evidence can be tied to credible lay testimony. The Court in *Weidner v Sanchez*, 14 S.W.3d 353 (TX Ap Houston 2000), affirmed an award to a passenger injured in taxi cab accident because "both lay and expert testimony provided competent evidence of causal link between collision and passenger's injuries to support damages award." The lay witness was appellee and the expert her treating orthopedic surgeon. Opposing doctor said injuries were caused by other medical problems and that the orthopedic surgeon "was emotionally involved with Sanchez as her treating physician." One wonders if he had qualified as a psychiatrist or psychic or if plaintiff counsel simply failed to object. *Tarrant Regional Water District v Gragg, et al.*, 43 S.W.3d 609 (Ct Ap Waco TX 2001), at page 618 says bluntly: "Credible lay testimony is relevant to causation." Here, Plaintiffs testified to increased severity and harm to their agricultural land caused by floods after an upstream reservoir was built. "We need not decide whether the testimony of the experts alone, or for that matter of the lay witnesses alone, is legally sufficient to prove causation. Their combined testimony is much more than a mere scintilla to support the court's findings of causation." It is desirable to mesh your lay and expert evidence carefully so that they work together, yet, like a man who wears a belt with his suspenders, at the same time be sure the expert evidence is sufficient if made to stand alone.

A merely conclusory opinion will not serve. In *Blan v Ali*, 7 S.W.3d 741 (TX Ap Houston 1999), it was abuse of discretion to disqualify plaintiff's medical expert as to the applicable standard of care in a medical negligence suit. However, at page 748, the fly in the ointment was that, with regard to causation, the expert's affidavit as to proximate cause of injury was "conclusory and insufficient to create a fact issue on the element of causation." Granting defendants' no evidence motion for summary judgment was upheld because "conclusory statements by an expert are not sufficient to support *or defend* summary judgment." [Emphasis in original.] See the discussion of *Blan* in Section XI for a fuller discussion of the inadequacies of the affidavit. See also *Green, et al., v Brantley, et al*., 11 S.W.3d 259 (TX Ap Ft. Worth 1999), for description of an affidavit which was properly thorough and contrasted with an opposing affidavit which merely presented "the trial court with a weak surmise or suspicion of a fact, that amounts to 'no evidence.'"

An excellent illustration of how a court of appeal can apply previous case law in thoroughly assessing the legal insufficiency of expert opinion as to causation is provided by *General Motors Corp. v Harper*, 61 S.W.3d 118 (Ct Ap Eastland TX 2001). See the discussion of this case in Section XI for an extensive checklist of points to cover, based on the inadequacies of the expert evidence offered by Plaintiff.

4. LOGIC.

Not all rules of proper logic or all sophistries will be discussed. Following are the ones the case reports give special attention to.

(a) *Syllogism.*

All expert opinion testimony is, as it were, an extended syllogism, with a major premise, a minor premise, and a conclusion (*Imwinkelried 1988*). The major premise is the theoretical or scientific principle. In matters of personal or professional performance, such as in malpractice cases, the theoretical principle is the standard of performance which is alleged to have applied to the action under consideration. The minor premise comprises the demonstrable, verifiable observations of relevant facts to which the expert testifies. The conclusion is the opinion itself. A mastery of syllogistic thinking will give the cross-examiner the surgical tools needed for dissecting the expert opinion.

The conclusion flows from the premises, the premises are not supposed to be tailor-made to serve the desired conclusion. In *E.I. du Pont de Nemours & Co., Inc., v Robinson*, at 923 S.W.2d 549, page 559, the Supreme Court quotes from *Sorensen v. Shaklee Corp.,* 31 F.3d 499, 502-3 (9th Cir. 1994): "Instead of reasoning from known facts to reach a conclusion, the experts here reasoned from an end result in order to hypothesize what needed to be known but was not..... [S]uch reasoning cannot apply here where several possible causes could have produced one effect." The authors suggest that using such logic is the hallmark of the hired gun. It enhances the expert's opinion if it can be truthfully said that the client's claims in that regard were not known until after the expert reported findings and conclusions.

The same happened in *Martinez, et al., v City of San Antonio, et al.,* 40 S.W.3d 587 (Ct Ap San Antonio TX 2001). The expert, after deciding the required amount of lead contamination that had to be in dust, searched for and located a report on a 100-year-old lead smelter in New Mexico as the basis for calculations for an iron foundry in San Antonio in 1991-1993. Inventive, to say the least, but the Court of Appeals said it had no reliability.

All required premises should be stated, which comes down essentially to relevant facts and the theory interpreting those facts. In *Yard v DaimerChrysler Corp.*, 44 S.W.3d 238 (Ct Ap TX 2001), only the alleged fact of failure of the air bag to deploy was asserted. Even if independent evidence proved air bag failure, such evidence in itself was not evidence that the failure caused injuries or death.

(b) *Inferences.*

An inference cannot be built upon a prior inference, for that is argument, not evidence, and the expert is limited to providing evidence. The Court in *Duff v Yelin, et al.*, 721 S.W.2d 368, quoting *Pekar v St. Luke's Episcopal Hospital*, 570 S.W.2d 147 (Civ Ap TX Waco 1978), stated: "[A]n inference cannot rest on an inferred fact; a presumption cannot rest on a fact presumed; and facts upon which an inference may rest must be established by direct evidence." A single, direct, legitimate inference from verifiable facts is illustrated in *Kroeger Co. v Betancourt and Wife*, 996 S.W.2d 353 (Ct. Ap TX Houston 1999). The expert discovered that more restraining rings than axles were purchased for a straddle jack, so the direct and reasonable inference was that the rings failed and had to be replaced more often than the axle.

Nor should the expert make a legitimate inference and then reach outside his field of expertise for another inference, combining the two for a grand conclusion. The Court of Civil Appeals, in *Adamson v Burgle, et al.*, 186 S.W.2d 388 (Civ Ap TX San Antonio 1945), expresses this rule at page 397: "[T]he expert in stating his opinions must be restricted to his particular field, which is limited by the superior knowledge, experience or education possessed by him as compared with that

of jury. There are also certain inferences of fact conclusions which must be drawn by a jury alone and no expert is deemed qualified in law to express an opinion embracing these matters. The expert may not take inferred facts properly stated by him and combine them with an inference which he is not authorized to make and thus arrive at a further inclusive conclusion or opinion."

What if the evidence does not favor one inference more than another, or none cogently? The Court of Appeals in *Morton International v Gillespie*, 39 S.W.3d 651 (Ct Ap Texarkana TX 2001), at page 658, explains the working of the equal inference rule. The rule "applies only where the circumstantial evidence supporting the inferences is so slight that any plausible inference is only a guess, and thus amounts to no evidence at all. If circumstantial evidence will support more than one reasonable inference, it is for the trier of fact to decide which is more reasonable, subject only to a factual sufficiency review."

In any case, if the expert fails to offer the inferences and the bases for them which are beyond lay knowledge, the testimony is unhelpful, and maybe even confusing and prejudicial as in *Manning v State*, 84 S.W.3d 15 (Ct Ap Texarkana TX 2002). The expert did not offer evidence of the half life of cocaine metabolites found in Defendant's blood, and thus the jury could not reasonably infer intoxication as basis for conviction for recklessness in vehicular manslaughter.

(c) *Sophisms.*

The sophism of *post hoc ergo propter hoc* is an ever present danger, as is arguing from unstated assumptions. Both occurred in *Morgan v Compugraphic Corp.*, where plaintiff had relied solely on her testimony that she had suffered certain physical ailments only subsequent to the installation of a typesetting machine immediately next to her work station. Such thinking takes too much for granted, particularly critical premises, in this case that the machine's fumes were toxic to humans. Taking things for granted through unstated and even unrecognized assumptions may be the major flaw in expert evidence. It is catastrophic for one's case when one shares the opponent's assumptions or fails to dig them all out. For example, the anti-expert experts have been mentioned elsewhere in this paper. They claim that handwriting expertise can be validated only by one particular kind of testing. The assumption is that it is the sole way to attain scientific knowledge, which in any case is provisional at best. Many within the discipline of handwriting expertise have bought that assumption wholesale, failing to recognize that there is a much deeper and more compelling scientific foundation, which is intimated in Section IX. The point is that having bought into that assumption, handwriting experts expend tremendous time and effort trying to satisfy a logically flawed argument claiming to apply *Daubert*, an argument which *Kumho* rejected (*Kam 1994*). If you become embedded in such a mental morass at trial, you yield control of the case to your opponent's mentality and cannot uncover and bring forth your best evidence. Beware far more of an opponent's logical assumptions than of the Jabberwock. (*Carroll 2000*)

The case of *Merrell Dow Pharmaceuticals, Inc., v Havner*, 907 S.W.2d 535 (Ct Ap TX 1995), provides several sophisms which experts might use, against which one must be on guard. At 907 S.W.2d, page 543, this one is given: "[A]bsence of evidence of a fact, standing alone, does not amount to some evidence of its converse. Absence of absolute proof that Bendectin does not cause birth defects in humans, is not some evidence that it does." Another sophism is given at page 544 where footnote 8 explains how "association" between two events does not prove causation. Increased drownings are associated with summer, but summer does not cause drownings, rather accidents in increased water sports do. In the Supreme Court's review of *Merrell* this idea is expressed by stating that epidemiology studies associations, it does not study causation *per se*, nor does a single study establish something as more probable than not.

Another example of absence of evidence used as basis for an opinion of causality is the *Yard*

case cited above, but on the side of theory rather than data. The expert found no published literature about an unrestrained driver dying where the air bag deployed, thus reasoning that death in the instant case was evidence of air bag failure.

(d) *Some Common Logical Flaws.*

Doyle Wilson Homebuilder, Inc., v Pickens, et al., 996 S.W.2d 387 (Ct Ap TX Austin 1999), demonstrates three violations of logic, the last of which we have seen. First, plaintiffs' expert "eliminated" all causes of a fire but the wiring, and so concluded that a wiring defect or improper installation was the cause. On the contrary, the process of elimination could have started, rather than ended, with consideration of the wiring installation and alleged defect, there also being no positive evidence of either causing the fire. Thus, by this expert's logic whatever possible cause we consider last would then be our actual cause, having eliminated all other possibilities. Thus we could prove any given cause to be the cause by using the very same logic and evidence, or rather lack of evidence and logic. We only need to leave the one we want to pin the blame on for last consideration.

Second, at page 392 is described how the defense expert pointed out a faulty cause-and-effect assumption in plaintiffs' experts' reports regarding faulting. "Owen testified that the evidence of faults after the fire does not itself indicate that faulting *caused* the fire; on the contrary; it was more likely that the fire burned away the insulation around the wiring, creating a fault that tripped the circuit breakers." [Emphasis in original.]

Third, it is noted at page 399 that the jury in effect rejected plaintiff experts' opinion on defective installation by failing to find the electrical sub-contractor negligent. Then the Court states: "Moreover, the plaintiffs' theory involved exactly the type of piling inferences on inferences or presumption upon presumption that appellate courts have consistently rejected."

The above case contrasts with *Fitts v State*, 982 S.W.2d 175 (Ct Ap TX Houston 1998), where at page 179 it is said: "At trial, the State called numerous experts who stated that the fire was intentionally set, and that other possible causes, such as faulty electrical wiring, had been ruled out." The opinion was based on a "pour pattern," alerts by hydrocarbon-sniffing dogs and scientific testing for traces of gasoline. The conclusion was well rooted in facts and proper reasoning.

Argument in a circle is a common sophism. In the *Yard* case cited earlier, the pathologist concluded that the air bag had failed because of the nature of the driver's injuries. This was offered to prove the assertion that air bag failure caused the injuries. If A is needed to prove B while B is needed to prove A, neither is proved. In *Nissan Motor Co., Ltd. v Armstrong*, 145 S.W.3d 131 (TX 2004), it was argued that hearsay was admissible, not for the truth of the mater, but to show that Defendant/Appellant Nissan knew it to be true. Therefore, by inference, it was true. The Court nixed that with: "The hearsay rules cannot be avoided by this kind of circular reasoning." 2004 Tex. LEXIS 737, at *25.

(e) *A Logical Conclusion.*

In summary, expert opinions necessarily employ logic, a lot of logic. If the cross-examining attorney has mastered the rules of logic, neither a sophistical nor a cynical argument by the expert will survive scrutiny.

5. COMPETING SCENARIOS.

Each party likely has a different version of how the central act came about. In handwriting identification that would be the disputed or denied writing. Typically, one side will say the purported author did indeed write it, while the other side will say someone other than the purported author wrote it. Having established the handwriting data and arrived at an opinion as to authorship, the expert should consider every competing or variant scenario and ask how it fits with the expert's

proven data and applicable principles of handwriting expertise. The expert may then find that the totality of expert observations and conclusions requires some completely other scenario in order to provide a reasonable explanation as to how they all could be true. The same applies to every expertise.

A reliability test of the expert's opinion, other than a reexamination or a logical evaluation, requires consideration of an alternative scenario. For example, a handwriting expert may at the start know of several suspects. Having identified one of these as the author, the expert would set up a series of hypothetical scenarios wherein each of the others in turn would be considered as the actual writer. Could any alternative hypothesis reasonably explain all indications to the contrary? If not, based solely on that fact alone the original identification could still be mistaken, because it has received only a negative verification. If so, it is almost certainly mistaken.

This consideration of competing scenarios relates to consideration of all reasonable possibilities as to causality, which was discussed in Section III, Sub-section C. The difference is that a scenario creates a story line which gives an alleged cause along with the action and interplay between cause and effect in a time sequence and within the context of circumstances. In *Ford Motor Co. v Aguiniga, et al.*, 9 S.W.3d 252 (TX Ap San Antonio 1999), the side accomplishing this prevailed. Expert for plaintiff eliminated alternative causes and concluded to one cause, stating reasons for doing each. Defendant Ford offered no alterative cause. The danger is that one will become carried away with the drama of it and introduce some unprovable or extraneous element, the implausibility of which can sabotage the entire claim.

An example of the expert addressing the story line advanced by both sides is well illustrated *In the Interest of D.S., D.S., D.S., and C.R.R.*, 19 S.W.3d 525 (TX Ap Ft. Worth 2000). A child had third degree burns over one-third of her body from her waist down. Appellant gave two different stories how it had happened, using one of them at court. The physician witness said the sharp line between burned and unburned skin and the evenness of the burn "was consistent with someone who was forced and pushed down into hot water and was inconsistent with a child who had turned on hot water while bathing." At page 527. In the latter instance, one immediately would try to escape, creating splash and uneven exposure to the hot water. *Duren v State*, 87 S.W.3d 719 (Ct Ap Texarkana TX 2002), is similar in that it is a case of capital murder of a child due to severe physical abuse. It provides an excellent example of how alternative explanations by Defendant for the child's injuries are defeated by expert medical opinion.

The three chief tests for the credibility of a scenario as an adequate explanation of the case are:

• the completeness of its coverage of all the facts,

• its not having any elements inconsistent among themselves or inconsistent with the established facts of the case, and

• its inherent reasonableness.

Thus in *Waring v Wommack*, 945 S.W.2d 889 (Ct Ap TX Austin 1997), at page 892 the Court of Appeals states that one of the positive qualities of the accident reconstruction expert's opinions was that they "were not inconsistent with the facts reflected in the record," and thus met the second test. A failure to meet the first test is illustrated by *Kelly v State,* 792 S.W.2d 279, where defendant's scenario, alternative to his having been the killer, did not explain most of the critical facts in the case, such as his having possession of the victim's property. All three tests are set out in *Weatherred v State*, 833 S.W.2d 341, at page 352. Noting that the State need not exclude "every hypothesis" other than defendant's guilt, the Court states: "[O]nce the State has presented all of its evidence, any differing hypothesis of how the crime occurred and/or who committed the crime must be 'a reasonable one consistent with the circumstances and facts proved, and the supposition that the act

may have been committed by another person must not be out of harmony with the evidence.' Appellant's 'unknown person' hypothesis, we find, is not a reasonable one based upon the facts and circumstances contained in the record before us...."

6. ALL POTENTIAL EFFECTS OF THE CAUSE.

At least in expert affidavits supporting summary judgment, all potential effects of the cause of the alleged injury might have to be addressed. In *Clement v City of Plano*, 26 S.W.3d 544 (Ct Ap TX Dallas 2000), that was one failing of the expert affidavit. The police officer shot and killed a mentally retarded youth who came at him with a knife, but the question was whether an alternative course of action was reasonable in the circumstances. The expert's "affidavit assesses [Officer] Nunns's need to defend himself from Michael, [but] it does not assess the risk to Michael of Nunns's action." At page 551.

An expert's trial testimony might assert something which would have an effect that can be, or already has been, ruled out by the evidence. For example, *In re Lare's Estate*, 352 Penn. 323, 42 A.2d 801 (1945), experts on one side said decedent's signature at issue was authentic. Since the questioned signature was quite different from contemporaneous genuine signatures but very much like those of earlier years, the anachronism supported the opinion of a forger who mistakenly copied a signature from an earlier period. Taking account of all potential effects of the cause is akin to the need for the opinion to account for, or at least not be contrary to, established facts in the case. See Subsection 5 above.

SECTION IV. FACTUAL BASES WITHIN THE CASE.

The expert is given a question, such as "Did X write the disputed signature," or "Is defendant mentally competent?" Whatever opinion the expert arrives at must be factually based or it is legally useless. As the court stated at page 199 in *Ford Motor Co. v Gonzalez*, 9 S.W.3d 195 (TX Ap San Antonio 1999) : "Naked expert opinion unsupported by fact can be said to have a 'suspension problem' of it own because it carries no probative force in law." The play on words came from the issue of whether the front right suspension of the vehicle was defective in manufacturing, causing the single-car accident.

Having been given the problem, the expert proceeds to gather relevant facts, then formulates a hypothesis which accounts for all relevant facts. If the hypothesis fits the litigant's claim in the case, the expert will be called upon to testify. At court, if a litigant's hypothesis of the case, including any elements adopted from his expert witnesses, does not sufficiently account for all or enough of the relevant facts, the proffered evidence will not carry the burden of persuasion. Thus in *Kelly v State,* 792 S.W.2d 279, a murder conviction was upheld in part upon appeal because defendant's alternative theories did not explain the victim's disheveled bed, a semen stain, his extra cash after the murder and his possession of the victim's property. A party at court must account for all the relevant facts currently available from the expert and other evidence, but the account must be subject to revision if more, new or better evidence becomes available. In this section, we look at the factors which test whether the expert gathered all relevant facts, considered them all, and developed a scientific thesis which reasonably and sufficiently accounts for them all. We already considered the same topic from the viewpoint of the "story" or "scenario," which are other words for a party's various hypotheses. Now we consider the topic from the viewpoint of facts which any hypothesis must take into consideration.

A. EXPLANATION OF WHAT IS MEANT BY TITLE OF SECTION.

If the case were to be tried entirely without any expert evidence, theoretically the facts disclosed would be entirely from an examination and/or investigation of persons, places, events and things involved in the happenings underlying the case. Considering the expert only as an investigator of persons, places, events and things involved in the case, the facts which the expert would uncover solely from such sources are what we mean by "Factual basis within the case itself." An expert opinion without such factual basis is inadmissible, as stated in *Holloway v State*, 613 S.W.2d 497 (TX Cr Ap 1981), at page 502: "Concomitantly [with establishing lay juror unfamiliarity with the area of expertise], relevance of the opinion to an issue in litigation is established only if the expert's conclusion is based on facts either proved or assumed." *Faries v Atlas Truck Body Mfg. Co.*, 797 F.2d 619 (8 Cir 1986), states the same thing in another way: There must be sufficient facts already in evidence or disclosed by the expert to take her opinion out of the realm of guesswork and speculation.

The Court of Criminal Appeals in *Jordan v State*, 928 S.W.2d 550 (Ct Cr Ap TX 1996), rules at page 556: "Adopting a notion of fit that is so strict as to require an expert to address every foreseeable issue pertinent to his testimony that might be raised by the relevant facts goes beyond the requirement that the testimony be helpful and therefore relevant under Rule 702. The question under Rule 702 is not whether there are *some* facts in the case that the expert failed to take into account, but whether the expert's testimony took into account *enough* of the pertinent facts to be of assistance to the trier of fact on a fact in issue. That some facts were not taken into account by the expert is a matter of weight and credibility, not admissibility." [Emphases in original.] Based on the Court of Appeals' decision which was reversed, "some" could be most of the applicable facts and "enough"

very little indeed. The preferable expert follows the commercial motto: "Good enough isn't." The more thorough a factual analysis your expert makes *vis-a-vis* the opposing expert, the more reliable, relevant and credible will be the opinion you rely on.

Absent any fundamental facts to support the opinion, the expert evidence is really no evidence at all. Thus, in *Schaefer v Texas Employers' Insurance Association*, 612 S.W.2d 199 (TX 1980), the problem with plaintiff's expert evidence in the case is summarized at page 264 where it is stated that it was admitted by the expert that the particular strain of the TB bacteria in question was not identified, that the manner of transmission was not known, nor could it be said whether it was anywhere in the county. "We have reviewed the substance of Dr. Anderson's testimony in its entirety and we find that it does no more than suggest a possibility as to how or when Schaefer was exposed to or contracted the disease." The expert in *Mata v State*, 13 S.W.3d 1 (Ap San Antonio TX 1999); remanded, 46 S.W.3d 902 (Ct Cr Ap TX 2001), lacked any data within the case except one alcohol breath reading, having no idea of factors specific to Mata such as weight or food taken.

B. ASSUMED: HYPOTHESIS. PARTICULARLY THE LITIGANT'S THEORY OR ALLEGATION.

A hypothetical question is a common way to elicit the expert's opinion to support one's theory of the case. Sometimes this is carried to ridiculous lengths. In *Alba v State*, 905 S.W.2d 581 (Ct Cr Ap TX 1995), when the prosecutor had asked a hypothetical question comprising 13 pages of evidence, defendant did not have a right to *voir dire* the psychiatrist testifying on future dangerousness since the question made all bases of the opinion known to the defense. Such questions often end with: "Do you have all those hypothetical facts in mind?" Naturally, the expert answers the way his client expects him to answer, that he does have every detail of the question in mind. The opposing party ought to have the right to test such a claim and make the expert repeat those 13 full pages of details to show that he does indeed have them all in mind. Of course, the expert would fail to do so, thus demonstrating how facetious is proof by an extended hypothetical question.

However, in *Joy v Bell Helicopter Textron*, 999 F.2d 549 (Ap DC 1993), the expert's entire opinion was based on the client's contentions, without generating any independent factual bases. At page 569 the unreality of the expert's estimate of the future earnings of decedent is described: "[T]here is little, if any, basis in the record for Dr. Glennie's estimate of Mr. Joy's future earning capacity. Most preeminently, the assumption that Mr. Joy would move into consulting and wholesaling appears to be wholly speculative. Indeed, Dr. Glennie simply made up new lines of work for Mr. Joy." And later: "Dr. Glennie based his projections on a single piece of property in the Virgin Islands without ascertaining the experience of investors in the Virgin Islands housing market."

In *State Farm Fire and Casualty Co. v Rodriguez*, 88 S.W.3d 313 (Ct Ap San Antonio TX 2002), Appellant/Defendant asserted that Plaintiff's expert had given an unreliable opinion since he had referred to his own opinion as a "wild ass guess." At page 319. However, the Court of Appeals pointed out that the phrase was in answer to a hypothetical on cross-examination asking if seven factors were potential causes of damage to Insured's foundation, as opposed to a plumbing leak being sole cause. He replied: "Correct, *if they exist*, yes." [Emphasis in original.] When then asked to allocate a percentage to each of the seven factors as contributing to the damage, he replied: "Absolutely not. That would be a wild-ass guess." Later at page 320 the Court of Appeals states: "The seven contributing causes referenced by State Farm's attorney were merely hypothetical." Then: "While Dabney's use of the phrase 'wild-ass guess' is not a term of art that can be deemed helpful to the Rodriguezes' case, it does not make the opinion unreliable." Maybe it ought to become

a term of art because it artfully made the man's evidence unambiguously evident.

C. EITHER STIPULATED OR NOT DISPUTED.

It is quite usual in handwriting cases that one or more exemplars are stipulated to, often with an admission by the writer. Thus in *Turner v State*, 636 S.W.2d 189 (Ct Cr Ap TX 1982), one of four exemplar signatures which the expert used was stipulated to as genuine. A stipulation can be a means of preempting testimony by an expert who might otherwise have great psychological impact on a jury.

The case of *Riddick v Quail Harbor Condominium Association, Inc.*, 7 S.W.3d 663 (TX Ap Houston 1999), provides an example of several facts which were not in dispute and which the experts on both sides relied on. The actual damage to plaintiff's unit and the fact that the foundation shifted because it lay on shifting soil were undisputed. The disagreement started from there.

The parties in *Texas Workers' Compensation Insurance Fund v Lopez*, 21 S.W.3d 358 (TX Ap San Antonio 2000), stipulated at trial that claimant suffered chronic obstructive pulmonary disease, so the only issue was whether it was an occupational disease. They also agreed "that the unsuccessful party should bear the costs," and the Fund did not challenge the credentials of claimant's medical expert. The fewer issues litigated the less costly it is for all parties. And why argue the obvious, such as a seriously ill man is or is not seriously ill?

If experts for both sides are in agreement on a point of opinion, that would seem to settle the matter. In *Morton International v Gillespie*, 39 S.W.3d 651 (Ct Ap Texarkana TX 2001), at pages 655-656, both parties' experts agreed "it was physically impossible for Mrs. Gillespie to reach the 'knock out zone,' i.e., come within three to four inches of the steering wheel, within 50 milliseconds." That is the proper time interval for an airbag to deploy.

D. EVIDENCE OFFERED BY THE SIDE RETAINING THE EXPERT.

Physical evidence must be demonstrated in order for the fact finder to be able to "find" it true. Demonstrable evidence must be relevant and accurate. A typical illustration of this is the treatment of photographic demonstrative evidence in *Duff v Yelin, et al.*, 721 S.W.2d 365 (TX Ap Houston 1986); affirmed, 751 S.W.2d 175 (TX 1988). Defendant's exhibit of a photograph showing how a patient's arm "could" be damaged by hanging off a gurney was excluded. In 721 S.W.2d at page 373, it is explained why: "In order to be admissible in evidence, a photograph must portray facts relevant to an issue in the case, and first be verified by a witness as being a correct representation of such facts." No such showing was made in this case, and so the photograph was properly excluded.

The rule stated in *Nations v State*, 894 S.W.2d 480, and elsewhere, that an expert witness may testify solely on the basis of hypothetical questions, means that the entire factual basis can be provided by the side hiring the expert, that the expert need not do an investigation or examination of any person, place, event or thing about which expert opinion is to be given. Nevertheless, each hypothetical fact upon which the opinion is based should be established by stipulation or evidence. Therefore, be very sure that the opposing side does not get away with doing less, since the human minds of jurors will likely forget all the hypothetical what-if's, absent your detailed reminder, but remember the resounding expert conclusion that your client is scientifically and definitely at fault.

If the expert relies on unreliable data from other experts in the same case, he falls with them. Thus in *Merrell Dow Pharmaceuticals, Inc., v Havner*, at 953 S.W.2d page 730, the one plaintiff expert who testified to causation had relied on the testimony of other plaintiff experts whose opinions were based on flawed data. And if the expert relies solely on the objectively unverified report of the litigant client, the opinion is not the expert's opinion. Thus in *Waltrip v Bilbon Corp.*,

38 S.W.3d 873 (Ct Ap Beaumont TX 2001), expert testimony on pain and suffering depended solely on plaintiffs' subjective complaints and so was unreliable

Plaintiff's engineer in *State Farm Lloyds v Mireles*, 63 S.W.3d 491 (TX Ap San Antonio 2001), claimed water from a leak at the bathroom migrated in plumbing trenches and caused heave several feet away, but he had no idea where the trenches were located. Further, his opinion clashed with facts he did know so he could not explain why there was no heave or moisture near the bathroom, saying "Only God knows." Unfortunately for the insureds, they called no heavenly expert to provide such missing data. It is dereliction of duty for an expert to go to court minus essential information, and it is neglect by counsel calling the expert not to verify that it is all covered.

E. EVIDENCE OFFERED BY THE OPPOSING SIDE.

Experts routinely, and properly ought to, utilize the data relied on by experts for the opposing side. Discussions under other topics in this work might reference this. On the other hand, if your expert has uncovered pertinent evidence or generated data which the opposing expert did not take into account, it could offer a means to impeach the opposing opinion, particularly if you can demonstrate that, outside of litigation, experts in that particular field routinely refer to and rely on such information from others in their field.

In *Trimboli v State*, 817 S.W.2d 785, at page 793 is described a unique way in which defendant supplied confirming data to the state's DNA expert. Defendant had an agent submit a test problem to Lifecode and got back a perfect answer. The story was a fictitious paternity problem using a sample from defendant. The results were more positive than the results defendant was objecting to. The Court summed it up: "Therefore, through Appellant's own witness, a match was proven using the criteria that Appellant maintains should have been used in the original test."

Some factual key element, such as an alleged negligent action, might be a gift delivered by the other side. In *Foust v Estate of Roland Walters, et al.*, 21 S.W.3d 495 (TX Ap San Antonio 2000), at page 505 it is reported that one defendant did just that: "Lindeman, testifying as an aerial application expert, in an admission against interest, stated that although it was not prudent to spray 2,4D within a mile of cotton, he had done so along a fence line within 200 to 300 yards of plaintiffs' fields." He thus provided evidence for both the applicable standard of care and the act of negligently applying herbicide and endangering plaintiffs' crops. With opponents like that, one needs fewer allies.

The case *Checker Bag Co. v Washington*, 27 S.W.3d 625 (Ct Ap TX Waco 2000), makes a single reference to expert evidence; at page 636 defendant's expert is said to have provided evidence for plaintiff's claim: "Checker Bag's expert testified that by its nature the 48PET bag would only provide at best one-third the moisture barrier that previous bags would. The evidence shows that the only change that occurred during the time that Washington was unable to obtain an acceptable shelf-life for his cotton candy was the change of the bag in which the product was packaged." He had accounted for each alternative factor Checker Bag suggested at trial as the possible cause of reduced product shelf-life.

One way to benefit from evidence developed by the opposing side is to find an expert consulted but not called to testify. Without explaining how it came about, the report on *Codner v Arellano d/b/a Road Runner Concrete*, 40 S.W.3d 666 (Ct Ap Austin TX 2001), says that the first expert engineer, whom a homeowner retained but did not call in his suit against a subcontractor for a shifting foundation, testified in contradiction to the homeowner's second expert engineer. The first said shifting of the soil caused problems with the foundation, while the second said the foundation was laid in an unworkmanlike manner. It is suggested that a rule requiring naming of all experts consulted would go a long way to reduce, if not eliminate, expert shopping by litigants.

F. EXPERT'S OWN OBSERVATIONS.

An expert was successfully challenged on several points, one being that she had not taken notes of her counseling sessions with appellee in the case *American West*, 935 S.W.2d 908 (Ct Ap TX El Paso 1996). An example of an unsuccessful challenge was the expert toxicologist in *Durham v State*, 956 S.W.2d 62 (Ct Ap TX Tyler 1997), who measured the presence of cannabinoids in the blood two hours after an accident. On the basis of the short half life of marijuana he estimated the amount of cannabinoids at the time of the accident and made a reasonable judgement about the degree of intoxication. However, we are not told whether or not the subject had smoked after the accident, which would certainly have skewed the data. In *Manning v State*, 84 S.W.3d 15 (Ct Ap Texarkana TX 2002), the expert did not offer evidence on the half life of cocaine metabolites found in Defendant's blood, and so conviction was reversed.

In *Faries v Atlas Truck Body Mfg. Co.*, 797 F.2d 619 (8 Cir 1986), the investigating officer made complete notes of his investigation of the physical scene of the accident, but the investigation was not complete and thus his report was unreliable. At page 622: "There were no measurements of the relative positions of Faries, the motorcycle and the milk truck, or of the positions of the gouge or skid marks on the highway...." In summary, the officer failed to make observations both necessary for forming his opinion as to fault and essential for the fact finder to evaluate his opinion's accuracy and reliability. In *Pierce v State*, at 777 S.W.2d page 414, the Defendant's expert on eyewitness unreliability made the same mistake with similar results: "On cross-examination, the State established that Dr. Bernstein had not examined any witnesses in the instant case and could not say which of the factors that he discussed would be applicable and, if applicable, to what extent they would undermine the witnesses' testimony."

In *Holloway v State*, 613 S.W.2d 497 (TX Cr Ap 1981), a psychiatrist, acting as an expert on defendant's future dangerousness, developed no factual bases for the opinion. He had never examined defendant and knew nothing of his psychiatric history. Contrariwise, in *Ford Motor Co. v Aguiniga, et al.*, 9 S.W.3d 252 (TX Ap San Antonio 1999), plaintiff experts personally observed the vehicle, which constituted objective data for reaching their opinions.

Appellee's tire expert in *Kumho Tire Co., Ltd., et al., v Carmichael, et al.*, based his initial opinion on inspection of photographs and not direct inspection of the tire. Further, he made factual errors in his observation about the wear of the tire tread. Do not take an expert's reported observations on blind faith. If your expert cannot demonstrate the accuracy of her own factual observations to you, it cannot be done for the jury. Catch the opposing expert in a mistaken observation that you can prove mistaken, and credibility tends to melt away. However, do not castigate the expert directly; wait until your case in chief, your rebuttal case or your jury argument. Experts are often expert at making evidential stink weeds smell like roses.

The expert must offer factual data. The Supreme Court in *Merrell Dow Pharmaceuticals, Inc., v Havner*, at 953 S.W.2d page 711, states that "an expert's bare opinion will not suffice" to support a factual finding, and that "the substance of the testimony must be considered" in reviewing the legal sufficiency of expert evidence. Simply using magic words will not supply lack of hard data, nor will it supply a scientific theory. Cases which insist on objective facts suggest that it is wrong to decide a factual issue solely on the weight of the comparative qualifications of opposing experts.

The expert must produce results specific to the case, not merely a resemblance or similar facts. So in *Roise v State*, 7 S.W.3d 225 (TX Ap Austin 1999), a private investigator for the defense found some of the pornographic material alleged in the indictment in book stores and libraries. Some photos were reproduced in other works and the rest could be ordered, though they were not. However, at page 239 the Court states: "As to the testimony about the Von Gloeden photographs,

there is nothing to show that the photographs Leonard Snyder viewed at the Harry Ranson Center and any Von Gloeden photographs alleged in count V of the indictment were the same." Be sure your investigator can prove, not just intimate, the specific material facts you need.

All these cases teach us that, for best results, be thorough. In *Helena Chemical Co. v Wilkins, et al.*, 18 S.W.3d 744 (TX Ap San Antonio 2000), observations that appellees' expert made covered performance of appellant's seed in different situations, applicable reports such as weather, crops in adjacent areas and pertinent experience of farmers. This is thoroughness.

If the expert fails to make proper observations, he may come up short as the licensed engineer in *Codner v Arellano d/b/a Road Runner Concrete*, 40 S.W.3d 666 (Ct Ap Austin TX 2001), did. In determining why a foundation shifted, he did not base his opinion on a personal, visual inspection of the house but relied on "another criteria." The jury chose to rely on another expert opinion. Likewise in *Star Enterprises, et al., v Marze, et al.*, 61 S.W.3d 449 (Ct Ap San Antonio TX 2001), where a board certified orthopedic surgeon was not permitted to testify because, among other reasons, he did not do what was needed to determine the timing of the infection, did not know all relevant medical records and had not seen the autopsy report. Likewise in *Brownsville Pediatric Assoc. v Reyes*, 68 S.W.3d 184 (TX Ap 2002), proffered defense rebuttal witness admitted mother had to suffer from diabetic retinopathy during pregnancy for her diabetes to cause her child's blindness, but there was no evidence she did. Confronted with actual weight and gestational age at birth, the same doctor conceded that the chance they caused child's blindness was remote at best, contrary to his theory. That suggests he failed to make a proper study of the medical records before forming his opinions, and it shows plaintiff attorney had mastered the relevant facts for effective use on cross-examination.

SECTION V. FACTUAL BASES OUTSIDE THE CASE.

Whatever the source of the facts upon which the expert bases the opinion, they must be reliable, whether admissible or not. Absent a factual basis, an opinion is inadmissible. Thus in *General Motors Corp., et al., v Sanchez, et al.*, at 997 S.W.2d page 591, referring to an earlier decision, the Supreme Court says: "We held that when the only facts in evidence contradict the assumption of the expert upon which his opinion is based, his opinion is 'without probative value and cannot support a verdict or judgment.'" At page 596 the Court is more specific: "Moreover, [plaintiffs' expert] Herrera gave his opinion [on conscious indifference to a known serious risk] in response to a hypothetical question about a manufacturer who gives no warning. Here, G.M. gave a warning, which we will discuss presently. If an expert's opinion is based on facts that are materially different from the facts in evidence, then the opinion is not evidence." It behooves counsel to note carefully all alleged facts, stated or merely assumed, upon which an opposing expert opinion is based. If so much as one such fact is missing in proof or has been positively disproved, the expert evidence is like the biblical house built on sand rather than rock. Sound jury argument should wash it away.

A. EXPLANATION OF WHAT IS MEANT BY SECTION TITLE.

Facts which do not fit the definition given in Section IV, Sub-section A, are considered here. They are what the expert, precisely as an expert, already possesses or specifically checks out from the applicable discipline during the course of her work in the case. The Court of Criminal Appeals in *Holloway v State* gives excellent descriptions of sources of the two kinds of facts. At page 503 for what we call "facts within the case": "Further, we hold that while a duly qualified expert witness may give his opinion based upon sufficient relevant facts, those facts must be either within his personal knowledge... or established by evidence." "Personal knowledge" in this context would be facts observed from examining persons, places, things, or events in the case. At page 502 for "facts from outside the case": "Sources of information underlying the opinion—such as medical studies, medical books, reports of other medical personnel and statements of patients—which are generally accepted by physicians as a basis for judgements regarding treatment, should withstand most objections on the ground of relevance." Left out of the quote from page 503 is a phrase which applies to the latter kind of facts: "[A]ssumed from common or judicial knowledge."

The expert in *Mata v State*, 13 S.W.3d 1 (Ap San Antonio TX 1999); remanded, 46 S.W.3d 902 (Ct Cr Ap TX 2001), was noted previously as lacking all data within the case except one alcohol breath reading. He lacked appropriate data from outside the case as well, such as being unaware of contrary literature and making erroneous mathematical calculations.

B. EXTRANEOUS CONTROLS.

Controls are items or compiled data against which an expert compares the questioned material which is the subject of litigation. For example, the controls for a handwriting expert are the exemplar writings, known to have all been written by the same author, that are compared with the denied or disputed writing which one side claims and the other denies that this same author wrote. In a case of identification of an ink by chromatography, the exemplar may be a sample of a chromatogram by a known ink sample from a collection in the laboratory to which a chromatogram of the ink from the disputed document is compared, or it may be another sample from the same document in order to determine if more than one pen was used on the same document.

Although some technical standard for an ideal handwriting exemplar might not have been met, the expert opinion could still be admissible. A handwriting expert's use of two exemplar signatures from quitclaim deeds, when ten to twelve are customary, did not render his testimony "so speculative

or conjectural as to be without probative value." It was legally and factually sufficient. *First Coppell Bank v Smith*, 742 S.W.2d 454 (Ct Ap TX Dallas 1987). We suggest that in the pretrial conference you survey your expert's opinion in detail and determine how any technical or legal lack can be made good or compensated for so as not to risk having to fight an uphill battle upon opposing counsel's objection.

It is advantageous to have an expert conversant with all legal and technical guidelines. Legal grounds for excluding the opinion in *First Coppell* existed in the fact that the expert supplemented the two exemplars with "known signatures of John Gorman, Jr. and Katherine Gorman made in his presence." The Gormans had retained the expert, so they were voluntarily making exemplar signatures explicitly to support their interests in the case. This violates the *post litem motam* rule which permits the opposing side to compel an adversary to make handwriting exemplars but proscribes a party or witness from making them voluntarily to prove one's own testimony or cause at court. This long standing rule is exemplified in Texas by *Wade, et al., v Galveston, H. & S. A. Ry. Co.*, 110 S.W. 84 (TX Civ Ap 1908), one of several Texas cases known to the authors which apply the *post litem motam* rule for handwriting exemplars. In *Wade* a witness who denied his signature should not have been permitted to write comparison signatures on direct examination. One of the authors surveyed California cases on this issue (*Matley 1998*). The only exception which the authors know of are cases where once the opposing side requests the other party to make exemplars, that person can make more if the request results in unrepresentative exemplars, *ex.gr.*, *Gilbert v California*, 63 Cal.2d 690, 47 Cal.Rptr. 909, 408 P.2d 365, (1966); certiorari, 384 US 985, 16 L.Ed.2d 1003, 86 S.Ct. 1902 (1966); remanded, 87 S.Ct. 1951, 18 L.Ed.2d 1178, 388 US 263 (1967). Apparently the other side in *First Coppell* never made the appropriate objection. Why risk one's case on the inadvertence or forbearance of opposing counsel?

Similar examinations which the expert made in other situations can offer comparative data to support the opinion. In the medical field this is illustrated by the doctor who examined appellee in *Maritime Overseas Corp. v Ellis*, 886 S.W.2d 780 (Ct Ap TX Houston 1994). The doctor had examined others with the same chemical exposure and drew on that experience to state an acceptable opinion within a reasonable medical probability.

C. CONTROLS FOR COMPARISON IN BEHAVIORAL EXPERTISE.

An analogous situation to a "library of standards" is the expert on behavior, such as the expert in child sex abuse in *Kirkpatrick v State*, 747 S.W.2d 833 (Ct Ap TX Dallas 1987). The prior victims whom the expert had worked with became the standards for establishing the pattern of behavior of child victims against which the testimony compared the victim in the case at hand. Two limitations should have been placed on the expert's testimony, the first, giving no more information than the jury required, is stated at page 836: "The need for expert testimony in child sexual abuse cases is limited to information that explains the aspects of a child victim's behavior that are beyond the jurors' common experience, and thus permits the jury more properly to draw inferences and conclusions from other evidence. Once the jurors possess the same enlightening information as the expert witness, and can more fully understand the matter at hand, further expert testimony is unnecessary and inadmissible."

The second limitation that should have been placed on the expert was no testimony regarding the credibility of another witness. This is described at page 838: "This testimony, which directly compared the complainant's behavioral characteristics with those exhibited by verified child victims as a class, did not ask for a point blank opinion on the complainant's credibility as did the testimony discussed under points five, six, and seven. However, the inference which the expert offered the jury

was that because the complainant's behavior was consistent with that of victims of proven credibility, the complainant must be telling the truth and the alleged sexual abuse must have occurred." Permitting that testimony was reversible error. Previously we discussed how one expert should not testify to the lack of qualification or credibility in another expert. The *Kirkpatrick* case could be cited to support an objection to such testimony.

Another child abuse case mentions a more objective standard. In *Gonzales v State*, 4 S.W.3d 406 (TX Ap Waco 1999), at page 417 it is said: "Expert witness testimony that a child victim exhibits elements or characteristics that have been empirically shown to be common among sexually abused children is helpful to the jury." One such common element is for the child later to recant the accusation due to such things as family pressure. We suggest that the defense prepare expert evidence, if there be research data to support it, that the child may recant because the original accusation was false. What parent does not know of a child caught in a fib, or suffering the guilt of undiscovered deceit, who recants the falsehood?

D. HEARSAY REASONABLY AND CUSTOMARILY RELIED ON BY EXPERTS IN THE PARTICULAR FIELD.

Relying on otherwise inadmissible hearsay is not an all-or-nothing-at-all proposition for the expert witness, as explained in *DeLuca, et al., v Merrill Dow Pharmaceuticals, Inc., et al.*, 911 F.2d 941 (3 Cir 1990). In its discussion on page 953, the Court explains that an expert does not have to accept conclusions of a study in order to use its underlying data. In this case experts for both sides relied on the same data from the same source and came to different opinions. Surely, having been hired by different parties had nothing to do with that occurrence.

An expert "may" disclose the underlying data which is otherwise inadmissible, but this is not an absolute right, otherwise the expert could be used to bring in much inadmissible evidence. *First Southwest Lloyds Insurance Co. v MacDowell*, 769 S.W.2d 954 (TX Ap Texarkana 1989). On the other hand, absent disclosure of the underlying data, there must be sufficient facts already in evidence or disclosed by the expert in order to take the opinion out of the realm of guesswork and speculation. *Faries v Atlas Truck Body Mfg. Co.*, 797 F.2d 619 (8 Cir 1986).

One of appellee's experts in *Maritime Overseas Corp. v Ellis* was so thorough in testifying to the sources of his opinion that the Court goes from page 787 to page 789 describing the extensive support for the opinion. The proffered expert had a substantial educational background, was very familiar with the topic of his testimony, had done much review of the available scientific literature, of which he gave detailed testimony and explained the science behind it all, had reviewed the medical records in the case, followed the applicable legal guidelines, drew his conclusion from all of this, and he had also reviewed the authoritative list of symptoms and the laboratory findings of others. The Court's description of the expert's investigations in the case is a veritable *vade mecum* for any expert who wants to leave no potential source of reasonably reliable data untapped.

In *Tarrant Regional Water District v Gragg, et al.*, 43 S.W.3d 609 (Ct Ap Waco TX 2001), two hydrologists for Appellees combined their own observations with what was useable from the opposing side and other customary sources. They followed the route of the flood water by using District's computer models, which they combined with "reliable data from numerous sources...."

1. REPORTS OF OTHER EXPERTS.

Relying on reports of other experts must be something which is established practice in a particular discipline. Thus *Jenkins v U.S.*, 307 F.2d 637 (DC Cir 1962), states at page 641: "[W]e agree with the leading commentators that the better reasoned authorities admit opinion testimony based, in part,

upon reports of others which are not in evidence but which the expert customarily relies upon in the practice of his profession."

Such reliance does not constitute hearsay as long as the testimony is not about the reports themselves. *Martinez v State*, 993 S.W.2d 751 (TX Ap El Paso); reversed, 22 S.W.3d 504 (TX Ct Cr Ap 2000), explains the rule at page 508. Expert's testimony was not hearsay, though based on data generated by another, "because it is not, and can never be, a statement 'other than one made by the declarant while testifying at the trial.'" The limits as to what can be revealed regarding the basis of an expert's opinion do not apply to the opinion itself, only to the underlying facts and data.

2. RESEARCH RESULTS.

The testifying expert need not have done the relevant research. Thus in *Merrell Dow Pharmaceuticals, Inc., v Havner*, 907 S.W.2d, it is said on page 551: "Merrell complains that appellees' experts all had the wrong backgrounds to testify about Bendectin because they were not primary researchers in the field, had not individually conducted tests on Bendectin, and did not treat patients with birth defects. This restrictive standard is not encompassed in our rules, nor in the case law interpreting those rules."

However excellent the studies are which are relied on, the data to which they are applied and the methodology and logic employed all must be correct and reliable. As the Supreme Court said in *Merrell Dow Pharmaceuticals, Inc., v Havner*, at 953 S.W.2d, page 714: "If foundational data underlying scientific opinion testimony are unreliable, an expert will not be permitted to base an opinion on that data because any opinion drawn from that data is likewise unreliable. Further, an expert's testimony is unreliable even when the underlying data are sound if the expert draws conclusions from that data based on flawed methodology. A flaw in the expert's reasoning from the data may render reliance on a study unreasonable and render the inferences drawn therefrom dubious. Under that circumstance, the expert's scientific testimony is unreliable and, legally, no evidence." To tie the applicable studies to the specifics of a given case, plaintiff must show:

- his similarity to those in the applicable studies;
- exposure to the same substance;
- exposure at a comparable dose;
- exposure occurred before onset of the injury;
- timing of the onset was consistent with the applicable studies; and
- that the evidence excludes other causes with reasonable certainty.

An expert can testify to supportive research as in *Gregory v State*, 56 S.W.3d 164 (Ct Ap Houston TX 2001). At 181 *et seq.*, there was no abuse in letting a nurse expert witness in a child molestation case testify to research that there can be sexual penetration without medical evidence of penetration, this occurring in 81% of cases. Such an expert might be asked: "Of all cases where there was no sign of penetration, in what percentage was there no penetration? And of the 81% where there was no sign of penetration, how was penetration proved?" It could be a matter of the accusation being the only evidence.

3. PROFESSIONAL LITERATURE.

One of the nonexclusive factors to be considered is "general acceptance" within the relevant scientific community to which the proffered expertise belongs. Here is considered such acceptance of published and other data on which the expert relies. General acceptance of the theoretical bases of the opinion is considered under Section VI, Sub-section D, "Authorities in the particular discipline." Finally, general acceptance of the expert's methodology is considered under Section VII,

"Methodological Bases." In this way the logical progression of the discussion is maintained, and you will be able to attack general acceptance from three different directions, thus enhancing chances of success.

DeLuca, et al., v Merrill Dow Pharmaceuticals, Inc., et al., held at page 954 that it is not required that "an expert's testimony be based upon reasoning subjected to peer-review and published in the professional literature." However, the Court says at page 955: "[An expert's] opinion cannot be excluded simply because the weight of scientific opinion leans against him. At the same time, however, the degree to which contrary opinion dominates the relevant literature is not wholly irrelevant to the reliability inquiry...."

It is best that your expert come into court with references to all supportive literature. An admirable example of this is in the case *Reid v State*, 964 S.W.2d 723 (Ct Ap TX Amarillo 1998). At page 728 is described how the expert, to support the basis in the professional literature for his expertise in Munchausen Syndrome by Proxy, supplied six complete articles in photocopied form and a database search of 122 abstracted articles spanning about 75 years and another bibliography. The State entered a compilation of 17 legal articles.

Quite in contrast to the above is the defense expert in *Green v State*, 55 S.W.3d 633 (Ct Ap Tyler TX 2001). At page 641 slovenly scholarship is described: "The documents appear to be photocopies of pages of some textbook or treatise, but no author, title of publication, or date of publication is provided in the record. Furthermore, there was no indication that Allen had relied upon or utilized the research or techniques described...." There were several other inadequacies indicated in the record.

4. EXPERT'S INTERVIEW OF PERSONS IN THE CASE.

An example of what is meant by this Item is a doctor taking a case history from a patient who is plaintiff, or an investigator interviewing one or more of the parties and witnesses who will be called.

The interviewing process must be balanced and fair. In *Faries v Atlas Truck Body Mfg. Co.*, 797 F.2d 619 (8 Cir 1986), the investigating officer talked to only one of two drivers involved, yet placed blame entirely on the uninterviewed motorcyclist, appellant Faries. That was one reason for upholding the appeal.

Interviews by others which were, or should have been, relied on by the expert in forming the opinion may be brought forward to impeach on cross-examination. Thus in *Nenno v State*, 970 S.W.2d 549 (Ct Cr Ap TX 1998), the prosecutor properly cross-examined defendant's expert with an inadmissible document. It was not used for the truth of its contents, but to impeach the expert with statements by defendant running contrary both to the expert opinion and to other statements by defendant.

At least in child sex abuse cases it seems preferable that there be no personal interview of the victim. In *Gonzales v State*, 4 S.W.3d 406 (TX Ap Waco 1999), at page 418 it is said the expert need not have interviewed the child; instead: "The Court of Criminal Appeals has held that the preferred practice for a child sexual abuse testifying expert witness is no personal examination of the child victim." Thus, the witness, answering to hypothetical questions only, would not be tainted by personal reference to the child nor would testimony address an ultimate fact issue, namely the child's truthfulness. A cynic might say avoiding a personal interview also forestalls the danger of contaminating the expert opinion with too much reality which might make it less serviceable to one's case.

5. EXPERT'S INTERVIEW OF PERSONS NOT IN THE CASE.

By "persons not in the case" we mean those who are neither parties to the action nor will be called as witnesses. In *Holloway v State*, 613 S.W.2d 497 (TX Cr Ap 1981), a psychiatrist had made the factual basis for his opinion of defendant's future dangerousness solely the conversations which he had had with people who knew defendant. At page 503 it is stated of any such expert: "[H]is opinion is without value, and is inadmissible, if based upon facts and circumstances gleaned by him from ex-parte statements of third persons, and not established by legal evidence before a jury trying the ultimate issue to which the opinion relates." To rule otherwise would seem to be a denial of a fair trial in which a defendant could confront and question his accusers, the unidentified persons whom the expert interviewed. It would be trial by gossip.

In *Faries v Atlas Truck Body Mfg. Co.* the observations of eyewitnesses were said not to satisfy the rule requiring a reasonably reliable basis for expert accident reconstruction. Quoting another case the *Faries* Court said: "Although courts may allow experts a great deal of discretion in choosing the base for their opinions, the court must examine the reliability of their sources."

In all of these considerations, the court ought not substitute its judgement for the scientific judgement of members of the relevant scientific community. Thus in *DeLuca, et al., v Merrill Dow Pharmaceuticals, Inc., et al.,* there is an extended discussion of risks and confidence levels in statistical studies of research. At page 952 begins a discussion of "The Admissibility Issues" under Rule 703. The Court quotes its statement from an earlier case: "The proper inquiry is not what the court deems reliable, but what experts in the relevant discipline deem it to be." The Court continues: "Further, we have noted that if an expert avers that his testimony is based on data experts in the field rely upon, then Rule 703's requirements are generally satisfied." However, this applies only to established practices within the discipline under consideration which are not in the context of litigation. So where other testifying experts in *Faries v Atlas Truck Body Mfg. Co.* relied on an unreliable report by an investigating officer, the case was reversed and remanded.

D. PUBLIC AND OTHER RECORDS.

In *Faries v Atlas Truck Body Mfg. Co.* there was question whether the public record of an officer's investigation at the scene of an accident was admissible. At page 622 are given four factors to consider:

- timeliness of the investigation;
- investigator's skill and experience;
- any hearing held; and
- possible motivational problems.

Other factors to consider are:

- any procedures for verification;
- the simplicity or complexity of the matter; and
- reliance on the record outside of the present litigation.

In *Ricciardi v Children's Hospital Medical Center, et al.*, 811 F.2d 18 (1 Cir 1987), a doctor's handwritten notation of the origin of appellant's injury was properly held to be inadmissible under the hearsay exception for medical records because, as stated at page 22: "[He] did not have personal knowledge of the event he recorded, nor had it been shown that he obtained his information from someone with an obligation to supply it. A transcribed note of unknown origins does not 'possess the characteristics justifying the presumption of reliability' normally accorded hospital records." The attorney offering such records must ascertain the requirements for its admission and make sure each requirement is met. In this case the third of three requirements was not met whereas the first two

were, namely, it was the type of document contemplated by the rule and the information was germane to the facts at issue.

Failure to study relevant public and private records may be enough to prove the opinion unreliable. Beside being excluded for non-relevance, the expert in *Melendez v Exxon Corp.*, 998 S.W.2d 266 (Ct Ap TX Houston 1999), had nothing to offer because of having not checked pertinent documentation. At page 283 it is stated that documents showed "it was possible Exxon was in violation of its permits as a result of its calculations for the on-purpose venting." The expert admitted that no action was taken against Exxon for any violation, that he had not read permits for the relevant years and so could not say they had been violated or that they prohibited what Exxon had done. It is a good idea to cross-examine your own expert on such issues before the opposition does. If at trial the opposition turns up a flaw, however minor, it may be too late to mend it.

If the expert's opinion is based on unreliable information or records, the opinion is inadmissible. Thus in *Ricciardi v Children's Hospital Medical Center, et al.,* it was not abuse of discretion to forbid the expert to rely on a medical notation which was found inadmissible for its lack of reliability. In *Nissan Motor Co., Ltd. v Armstrong*, 145 S.W.3d 131 (TX 2004), the Supreme Court emphasizes that it is error to admit documents regarding accidents of the same type which lack enough specific similarity, such as admitting records of daytime accidents at railroad crossings in a case involving an accident during a foggy night. It is also error to exclude records of prior incidents which had sufficient similarity, where in all the situations motorists' headlight failed to illuminate a crossing in a depression until it was too late. 2004 Tex. LEXIS 737, at *14 *et seq.*, the *Armstrong* case gives three guidelines:

First, the other incidents "must have occurred under reasonably similar" conditions.

Second, there must not be undue prejudice, confusion or delay. Specifically The Court states that "prolonged proof of what happened in other accidens cannot be used to distract the jury's attention from what happened in the case at hand." We all know that the weaker a case is, the more its proponent wishes to litigate extraneous issues.

Third, relevance depends on the purpose in offering the extraneous cases. Examples of relevant purposes are given:

- to show unreasonably dangerous design;
- to show a warning ought to have been given;
- to show a safer design was available at the time of manufacturer; or
- to show conscious indifference towards known accidents.

Governmental regulations and industry standards which are applicable to the problem certainly require an expert's attention. In *Wal-Mart Stores, Inc., v Garcia*, 974 S.W.2d 83 (Ct Ap TX San Antonio 1998), the expert's testimony regarding proper procedures in moving a ladder through a store was admissible. He had knowledge of relevant Texas statutes and OSHA regulations, and he had helped write safety procedures for stores, including the proper way to move a ladder.

In *Torrington Co. v Stutzman*, 46 S.W.3d 829 (TX 2000), the expert combined such sources with other evidence which fits the previous Section for an opinion reliable all the way up to the Supreme Court. Plaintiff expert concluded debris in the grease of a sealed bearing caused it to fail and thus the helicopter to crash. He based this on examination of the bearing, review of depositions, study of the bearing's specifications and history, an FAA inspection report from a previous crash, and report of crash survivors that there was a burning smell before any significant vibration was noticed. It is the height of expertise to be able to integrate all permissible sources of information into a cohesive and credible whole.

SECTION VI. THEORETICAL BASES OF THE OPINION.

In *Avila v State*, 954 S.W.2d 830 (Ct Ap TX El Paso 1997), the Court of Appeals states at page 838: "In particular, the courts seek to scrutinize proffered scientific testimony when it is based on novel scientific theories, or 'junk science.'" Texas cases hold that there are no particular factors which are required to be met, but that some of the criteria among those which the courts have set out must be met sufficiently well to prove the reliability of the expert evidence in a clear and convincing manner. Thus *Fowler v State*, 958 S.W.2d 853 (Ct Ap TX Waco 1998), states at page 864: "In making this determination about scientific evidence, *Kelly* lists seven *nonexclusive* factors for the trial court to consider. We acknowledge that each of the factors may not be satisfied by the proponent of the evidence. Indeed, all may not apply. There may be others. We believe that if at least some of the *Kelly* factors cannot be satisfied, then the testimony should be excluded." [Emphasis in original.]

Such a reasonable attitude will not prevent an unreasonable challenge to your expert evidence, but it offers you a compelling response to the challenge. For example, in attacks on identification expertise, the anti-expert experts assert that under *Daubert* the only thing which will prove that the skill is reliable is a blind testing as done in drug development/marketing and in the social sciences. See Denbeaux's testimony in *U.S. v Velasquez*, 33 Virgin Is. 265 (3 Cir 1995), which neither the trial court nor the Court of Appeal agreed with, though the latter found him competent to give it.

As mentioned previously, the issue of the expert's qualifications as an expert is a different question from admissibility of the expert evidence. Thus in *Holloway v State*, 613 S.W.2d 497 (TX Cr Ap 1981), at page 501, citing several earlier case decisions, the Court of Criminal Appeals quotes one of them: "And indeed, 'even though a witness' qualifications as an expert may be established or admitted, his opinion may be inadmissible if there is no evidence of technical or scientific support for it.'" The opinion itself also must be admissible on several levels, only one of which is the theoretical, that is scientific, basis of the opinion. In *Epps v State*, 24 S.W.3d 872 (Ct Ap TX Corpus Christi 2000), at page 879, speaking of fingerprinting, the theory and its practical application are clearly distinguished as different areas of enquiry: "However, once a particular type of scientific evidence is well established as reliable, a court may take judicial notice of that fact, thereby relieving the proponent of the burden of producing evidence on that question. [Case citations omitted.] Likewise, a court may take judicial notice of the validity of the technique applying that principle."

A. SUBJECT TO JUDICIAL NOTICE.

1. IN GENERAL AND INTOXILYZER TEST.

If the particular expertise is admissible by statute, the trial court can take notice of this fact, and the matter is settled. Thus the Court of Appeals in *Hartman v State* states in 917 S.W.2d at page 120: "We are not faced with a similar situation here [i.e., novel scientific evidence]. Rather, we are here confronted by an intoxilyzer test that is rendered admissible by statute..., and that has long been admissible without any predicate showing as to reliability...." See also *Henderson v State*, 14 S.W.3d 409 (TX Ap Austin 2000). However, though the discipline itself may be admissible, the proponent still has to show the qualifications of the expert as well as the relevance and reliability of the opinion relative to the particular issue before the fact finder. In the same case of *Hartman*, the Court of Criminal Appeals considered this question. In 946 S.W.2d at page 63 *et seq*., the concurring and dissenting opinion is given. Factors 1 and 2 of *Kelly* can be decided as a matter of law. Either the legislature recognizes validity, or the scientific principle is so well established it is subject to judicial notice. Other scientific principles "have been established sufficiently to warrant admissibility as a matter of course.... Trial courts should not become constantly embroiled in determining the admissibility of scientific theories and techniques that have already been well established as

reliable." In such cases, the expert's qualifications, the proper application of the technique and the specific fit to the special facts of the instant case still must be shown.

2. HANDWRITING EXPERTISE.

On this authority, in Texas it would seem that the reliability of the discipline of handwriting expertise could not be challenged. The case *Logan v State*, 48 S.W.3d 296 (Ap TX Texarkana 2001), states at page 301: "Authentication of handwriting may be established by a comparison performed either by experts or by the jury. Tex,Code Crim.Proc.Ann. art. 38.27 (Vernon 1979)...." The expertise apparently is admissible by statute.

In at lest one case the admissibility of handwriting expertise was blessed with judicial notice. In *Greenberg Gallery, Inc., v Bauman*, 817 F.Supp. 167 (D.C. DC 1993); affirmed without opinion, 36 F.3d 127 (DC Cir 1994), the District Court states at 187 F.Supp. page 172, note 5: "It can be judicially noted that handwriting, like fingerprints, are subject to established objective tests, expert opinions about which are admissible." This does not mean one may not challenge a particular handwriting expert as not providing evidence "subject to established objective tests." Many shirk the danger of such testing by claiming it is fundamentally a subjective application of personal experience and skill. Some courts accept this claim and bless the claimants by protecting them from rigorous, objective testing, such as in *Starzecpyzel*, 880 F.Supp. 1027 (S Dist NY 1995). On the other hand, *United States v Jones*, 880 F.Supp. 1027 (E.D. TN 1995), 1997 US Ap LEXIS 3696, 1997 Fed Ap 0082p, 107 F.3d 1147 (6 Cir 1997); cert. denied, 117 S.Ct. 2527 (1997), accepted this ploy used by some experts and nevertheless invited a full challenge in 107 F.3d at page 1161: "But we wish to emphasize that just because the threshold for admissibility under Rule 702 has been crossed, a party is not prevented from challenging the reliability of the admitted evidence." Never toss out a potential challenge, since opportunity to use it may occur unexpectedly at any time during trial.

3. FINGERPRINTS.

In Texas, fingerprinting has long been subject to judicial notice, as expressed in *Epps v State*, 24 S.W.3d 872 (Ct Ap TX Corpus Christi 2000), at page 879: "However, once a particular type of scientific evidence is well established as reliable, a court may take judicial notice of that fact, thereby relieving the proponent of the burden of producing evidence on that question. [Case citations omitted.] Likewise, a court may take judicial notice of the validity of the technique applying that principle." See also *Moore v State*, 78 S.W.3d 387 (TX Ap Tyler 2002), at page 391: "The testimony of a fingerprint expert identifying a defendant's fingerprints has long been sanctioned by the Texas Court of Criminal Appeals. *Grice v. State*, 142 Tex.Crim. 4, 151 S.W.2d 211 (1941). This Court, as well as the trial court, may take judicial notice of the validity of fingerprint identification."

4. OTHER DISCIPLINES.

A particular aspect of a discipline may be subject to judicial notice, as was said of the psychological test MMPI II in *Muhammad v State*, 46 S.W.3d 493 (Ap El Paso TX 2001), at page 508: "We may take judicial notice of that reliability."

Regarding scientific evidence not subject to judicial notice, the Court in *DeLuca, et al., v Merrill Dow Pharmaceuticals, Inc., et al.*, 911 F.2d 941 (3 Cir 1990), at page 954 quotes its ruling from an earlier case: "Rule 702 requires that a district court ruling upon the admission of (novel) scientific evidence, i.e. evidence whose scientific foundations are not suitable candidates for judicial notice, conduct a preliminary inquiry focusing on (1) the soundness and reliability of the process or technique used in generating the evidence, (2) the possibility that admitting the evidence would

overwhelm, confuse, or mislead the jury, and (3) the proffered connection between the scientific research or test result to be presented, and particular disputed factual issues in the case."

Though not quite subject to judicial notice, a theory might have received recognition so that you can marshal support in case law for your expert's theories. Thus in *Jensen v State*, 66 S.W.3d 528 (TX Ap Houston 2002), at page 543 it is stated: "The Court of Criminal Appeals has recognized research concerning the behavioral characteristics of sexually abused children as a legitimate field of expertise. *See Cohn v. State*, 849 S.W.2d 817, 818 (Tex. Crim. App. 1993)."

B. LAW OF PHYSICS, ETC.

The Court of Appeals in *Merrell Dow Pharmaceuticals, Inc., v Havner*, 907 S.W.2d 535, at page 540, states three ways in which causation is found: (1) "general experience and common sense" permit it; (2) natural law "that a result is always directly traceable back to a particular cause;" and (3) expert testimony on "reasonable probability." An example of the second is provided in *Waring v Wommack*, 945 S.W.2d 889 (Ct Ap TX Austin 1997), at page 892: "Mr. Nalle demonstrated two tests at the scene of the collision. He explained the laws of physics that support the tests he performed and referred to textbooks and literature that detail the theory of accident reconstruction.... Using the results from these tests, together with the physical evidence from accident, and applying the laws of physics, Mr. Nalle offered his conclusions...."

In *Wal-Mart Stores, Inc., v Garcia*, 974 S.W.2d 83 (Ct Ap TX San Antonio 1998), an engineer's expert opinion as to the force with which a falling sign struck the plaintiff was "based on well-recognized laws of physics."

C. COMMON KNOWLEDGE.

The Court of Criminal Appeals sets out various sources of the expert's theories in *Ramirez v State*, 815 S.W.2d 636 (Ct Cr Ap TX 1991), when it states at page 650: "An expert witness may give his opinion based upon sufficient relevant facts provided those facts are within his personal knowledge, assumed from common or judicial knowledge, or established by the evidence." An Illinois case provides an example how a handwriting expert was not permitted to testify since the observations were things any person would commonly know to look for and compare. In *People v Stapleton*, 4 Ill.App. 477, 281 N.E.2d 76 (1972), at page 79 the Court says of the expert whom the State attempted to qualify but the trial court rejected: "Her testimony was confined to matters that are clearly observable and subject to determination by laymen, i.e., the circles over the letter 'I' instead of a dot, the slant of the letters, and the crossing of the 't's.' While these are matters that one would properly consider in comparing handwriting, they are not matters as to require the testimony of an expert witness." Many handwriting experts speak of many different types of features, but they fairly confine their practical observations to things "clearly observable and subject to determination by laymen." The cross-examiner ought to challenge them to delineate verifiable observations covering every theoretical feature they talk about or simply move that they be dismissed as providing no facts beyond the ability of the jurors to observe for themselves.

Although usually expert evidence would be required for a particular issue, there might be a "common knowledge" exception. Thus in *Arlington Memorial Hospital Foundation, Inc., v Baird*, 991 S.W.2d 918 (Ct Ap TX Fort Worth 1999), it is said at pages 921-2: "In a medical malpractice action, expert testimony is required to prove negligence or gross negligence unless the form or mode of treatment is a matter of common knowledge, or the matter is within the experience of a layperson." If an opponent brings an expert, maybe an argument that the factual issue is common knowledge or within the experience of a layperson will prevail to exclude the expert. If an opponent

fails to bring an expert, what in the factual issue is beyond either common knowledge or layperson experience so as to require a particular expert?

In *Green v Texas Workers' Compensation Insurance Facility*, 993 S.W.2d 839 (Ct Ap TX Austin 1999), at page 845 it is said that a finding of medical incapacity does not require expert testimony: "[A] jury may reasonably infer incapacity from circumstantial evidence or the competent testimony of lay witnesses." That can even be lay opinion which prevails over the experts: "In fact, lay opinion testimony will support a finding of incapacity even if directly contradicted by expert medical testimony."

D. PUBLICATIONS: AUTHORITIES IN THE PARTICULAR DISCIPLINE.

The degree to which authorities in a particular discipline are found to agree on a thing is the measure of its general acceptance within that particular field. This is the *Frye* test, 54 App.D.C. 46, 293 F. 1013, 34 A.L.R. 145 (1923), which is now one of several nonexclusive factors to be considered. Thus in *Glover v State* the Court of Appeals agreed with the trial court that, in response to the defense's request to apply *Frye*, DNA expert testimony had been unrebutted as scientifically reliable and was generally accepted in the particular fields in which it belongs. Similarly in *Emerson v State*, 880 S.W.2d 759 (Ct Cr Ap TX 1994), the Court found a sufficiency in the scientific literature to hold that the theory underlying horizontal gaze nystagmus testing was reliable. General acceptance might loom large in a particular case, as in *State Farm Lloyds v Mireles*, 63 S.W.3d 491 (Ct Ap San Antonio TX 2001). Mireles' engineer held theories no one else in his field held: soils under foundations shrink only if weight load is too much, trees do not cause house settlement, and a sewer pipe seepage caused problems six feet away but not closer. Asked why the last point, he replied: "Only God knows." Unfortunately, he had to know to make his opinion reliable.

Publication is a two-edged sword which can cut an expert down both because of what is published and because of what is rejected for publication. Defense rebuttal expert in *Brownsville Pediatric Assoc. v Reyes*, 68 S.W.3d 184, 196 (TX Ap 2002), based the possible cause of a child's blindness "on his study of rats. However, we note that this study was rejected for publication by his peers because rat retinas are different from human retinas." Other parts of his theories also lacked acceptance in his field.

If one's expert is shown to lack majority support within his own discipline, one can urge the court to consider the guideline in *DeLuca, et al., v Merrill Dow Pharmaceuticals, Inc., et al.*, 911 F.2d 941 (3 Cir 1990). At page 957 that Court stated: "The fact that a scientific community may require a particular level of assurance for its own purposes before it will regard a null hypothesis as disproven does not necessarily mean that expert opinion with somewhat less assurance is not sufficiently reliable to be helpful in the context of civil litigation." Footnote 20 is then referenced which states: "We have previously suggested that what is 'helpful' for purposes of Rule 703 may be different in a criminal context than in a civil one." This is due to the difference in the level of proof, generally beyond a reasonable doubt versus a preponderance of the evidence, but not due to the substance of the expertise or the rules of evidence *per se*.

In *Durham v State*, 956 S.W.2d 62 (Ct Ap TX Tyler 1997), the expert testified that a correlation between blood concentration of cannabinoids and intoxication was established, though not as directly or as well as with alcohol. The case report does not mention any particular references which the expert offered, but this is something always to be asked of the opposing expert. If an expert cannot document a theoretical assumption, it should be considered a mere assumption. It should do the expert no good to rely on published literature but leave it unspecified, as one of the experts in *Mitchell Energy Corp. v Bartlett, et al.*, 958 S.W.2d 430 (Ct Ap TX Fort Worth 1997), did.

On the other hand, in *Perkins v State*, 902 S.W.2d 88 (Ct Ap TX El Paso 1995), the state's expert psychologist was accused on appeal to have perjured himself by misrepresenting published findings in a scientific study, which he did not identify on the record. Since the two studies, one of which appellant contended had to be the study referred to, were not in the trial record, the Court of Appeals could not consider them, and thus ruled that nothing in the record supported the claim of perjury. That would seem to underline the necessity of making every opposing expert specifically identify all publications relied on or referenced. It is rare that your own study of the publication relied on will not reveal a tidbit contrary to some detail of the expert's opinion.

To prove causality by chemical agency in illness or injury, epidemiological studies are the major theoretical basis. The Court of Appeals in *Minnesota Mining and Manufacturing Co. v Atterbury, et al.*, 978 S.W.2d 183 (Ct Ap TX Texarkana 1998), surveys at pages 192-193 those cases which had ruled expert evidence on general and specific harm by silicon gel implants inadmissible and other cases that had ruled such evidence admissible. The key factor was whether the studies relied on were themselves reliable. The reasons are given for which courts of appeal accepted and rejected medical studies on the issue, at times the very same studies being rejected by one court and accepted by another. The discussion of *Atterbury* in Section XI lists some guidelines for laying the proper foundation for epidemiological studies. These guidelines may be useful in laying a foundation for admissibility of studies in other fields.

The case of *Jarrell v Park Cities Carpet and Upholstery Cleaning, Inc.*, 53 S.W.3d 903 (Ct Ap Dallas TX 2001), closes the door to asserting a specific formula and not the chemical itself must be the object of a study, otherwise one need only change the name and escape scientific evidence: "A manufacturer could make slight variations in chemical solutions, apply different trade names, and then assert there was no study on the variant solution. Such an application reduces the *Robinson/Havner* analysis to a matter of semantics, not science. Because the trial court excluded reliable causation evidence on the components of Thermo 55 and 9-D-9, we sustain Jarrell's first issue." At page 903.

Treatises need to be substantial enough to show validity for the theory and general acceptance in the field. In *Sexton v State*, 12 S.W.3d 517 (TX Ap San Antonio 1999), the police ballistics expert cited four treatises of which it is said at page 520: "Thus, while the treatises may make only sparse mention of magazine marks, it is clear that a magazine can leave identifying marks on cartridges and shell casings that can be matched to that magazine." However, the Court of Criminal Appeals, 93 S.W.3d 96, 2002 Tex Crim. App. LEXIS 194 (TX Ct Cr Ap 2002), said two of four sources gave passing reference and none supported the application made in the case. But if they are totally lacking for the theory put forth, the expert can be kept out as in *Helm v Swan, et al*., 61 S.W.3d 493 (Ct Ap San Antonio TX 2001). *Peters v State*, 31 S.W.3d 704 (Ct Ap Houston TX 2000), at page 712 says regarding reliance on journal articles to support one's opinion: "Under Tex.R. Evid. 703 experts are allowed to rely on such evidence. It is one of the things that makes them expert."

The Court of Criminal Appeals held that it could find the proper literature itself and take judicial notice of it, *Mata v State*, 13 S.W.3d 1 (Ap San Antonio TX 1999); remanded, 46 S.W.3d 902 (Ct Cr Ap TX 2001), at page 910: "We may take judicial notice of scientific literature not presented by either party at trial or on appeal." Result of the study was that the scientific community was divided on reliability of retrograde analysis of blood alcohol.

E. PUBLICATIONS: AUTHORITIES FROM OTHER DISCIPLINES.

An interesting failure to rely on substantial support from another discipline's literature is given in *Warren, et al., v Hartnett, et al*., 561 S.W.2d 860 (TX Ap 1978). The handwriting expert was going

to offer testimony that the handwriting of decedent showed alcoholism. The Court states at page 863: "[W]e are aware of no recognized field of scientific inquiry which permits divination of mental capacity by persons whose expertise is limited to handwriting analysis." The fields of both character and forensic handwriting analysis offer objective studies of the effects of alcohol on handwriting, as well as studies in related topics. The medical and psychological literature offers excellent studies whose conclusions are compatible with the former. An expert presuming to offer such specialized evidence should have first become conversant with the scientific literature supporting it, otherwise he is very likely to perform incompetently at best. In the case of *Durham v State*, mentioned in the previous sub-section, the expert testified that a correlation between blood concentration of cannabinoids and intoxication was established, though not as directly and as well as with alcohol. However, it must be pointed out that, since other substances can have similar effects on handwriting as alcohol, other evidence must confirm the inference from handwriting for a positive proof to be made, a point which the *Warren* court rightly makes by saying: "[T]he witness did not state enough *related* facts, based upon her *personal* knowledge of the testatrix's characteristics, to support her opinion." [Emphases added.]

Akin to this issue would be authority from other locales in regards to professional or community standards, which can be the theoretical bases for assertions of such things as malpractice. In *Hall v Huff*, 957 S.W.2d 90 (Ct Ap TX Texarkana 1997), the Court said that Plaintiff in a medical malpractice suit must show (1) what the standard of care is and (2) that there was deviation from such standard. Footnote 53 on page 101 rejects the proposition that the physician expert was disqualified by being out-of-state, and it applies the rejection to other areas of professional performance: "Similarly, in non-medical professions, courts have rejected a strict locality rule for establishing standards of care." The reason the Court gives for this judicial attitude is that "the customary criticism of the locality rule is that it tends to perpetuate and protect an inferior local standard of care.... [T]here is no evidence that nursing standards of care in Texas greatly differ from or are inferior to national standards."

If opposing counsel argues that an expert from the another discipline is required or that the witness must be qualified in both fields, *Roberson v State*, 16 S.W.3d 156 (TX Ap Austin 2000), offers authority to the contrary. Two DNA experts testified to the probability of any one else having the same DNA as was left at the scene of the rape which matched defendant's DNA. At page 168 the Court gives Appellant's argument, that the DNA experts were not experts in statistics and probability and so ought not have been permitted to offer such evidence, and rejects it: "The State, however, is not required to call a mathematical expert to comment on the possible interpretation of statistical evidence."

If the witness claims expertise in a field other than his own solely from study of the literature of the former, *Yard v DaimerChrysler Corp.*, 44 S.W.3d 238 (Ct Ap TX 2001), at page 242 gives good authority for arguing against admissibility: "While Friedlander's medical training and experience may have contributed to his ability to understand the published literature, there is no evidence that he had any more specialized knowledge about effects of deployed air bags in automobile accidents than other well-educated individuals with access to the same literature." He had admitted that he lacked special training in engineering or in occupant kinematics.

F. THE EXPERT MUST BE CONVERSANT WITH THESE SOURCES.

In *Brown v State*, 881 S.W.2d 582 (Ct Ap TX Corpus Christi 1994), the FBI expert in DNA showed that the technique was valid and properly applied, since related population frequency studies were valid and reliable, DNA was unique throughout one's lifetime and rarely changed, the scientific

community has used it for 20 years, and there were 700 to 500 samples in the FBI's DNA database, apparently for each ethnic group. Only mastery of all sources of applicable scientific information enables an expert to give such thoroughgoing testimony.

Lacking sound scientific support for one's own position cannot be compensated for by denigrating the scientific works which point the other way. The Court of Appeals in *Merrell Dow Pharmaceuticals, Inc., v Havner*, 907 S.W.2d, says quite pointedly at page 548: "Casting unsubstantiated aspersions on the work of others cannot be considered a substitute for real scientific data." Nor can creation of suspicion take the place of a sound scientific basis for expert opinion. On the same page the Court quotes another case report: "[S]ome suspicion linked to other suspicion produces only more suspicion, which is not the same as some evidence.... Our system of justice is designed to ensure that our fundamental right of trial by jury does not become some mere game of chance.... Where there is real evidence, we must uphold the jury verdict, but in a case such as this where there is only real suspicion, we must overturn it."

If an expert does not know of some authoritative work, it can be used to "demonstrate any deficiency in the expert's knowledge and to help the jury determine the weight to be given the testimony," as stated in *Ramirez v State*, 815 S.W.2d 636 (Ct Cr Ap TX 1991), at page 651. The Court then states the predicate for doing so: "Before the material may be used for impeachment purposes during cross-examination, however, the impeaching party must establish the material as a recognized authority in the particular field of expertise." The usual way to establish such recognition is to ask the expert directly. If the expert is one of those who refuse to recognize any inconvenient authority, be prepared to establish the authoritative nature of a work by such means as your own expert's testimony or citations and quotes from that work in the case law.

A 1982 case even approved of the expert's networking to obtain relevant hearsay evidence, admissible because that was what experts did in his field. The case, *Royal Indemnity Co., et al., v Little Joe's Catfish Inn, Inc., et al*., 636 S.W.2d 530 (Ct Ap TX San Antonio 1982), at page 533 quotes an earlier court case: "Every expert's opinion is, necessarily, in most instances, based in part upon hearsay in that some data obtained from various sources is necessarily hearsay. Specifically, here, Crawford testified to having used 'cost guides that are accepted by various area contractors' and *telephone conversations with contractors*. Although the knowledge obtained in this manner is hearsay, it is *one way* that an expert on repair costs *can keep current* on construction costs. This method is perfectly permissible." [Emphases added.] If an expert can establish that such is the practice whereby experts in the particular field reasonably rely on their colleagues' advice, the same reasoning ought to work for any field of expertise. In *Chavers v State*, 991 S.W.2d 457 (Ct Ap TX Houston 1999), an accident reconstruction expert similarly consulted several more experienced individuals in the field of accident reconstruction in determining speed from yaw marks left at the scene of the accident. However, an expert could not testify that such other experts had the same opinion as to conclusions testified to, as that would be introducing testimony from other experts which is subject neither to qualification by the court nor to cross-examination by the opposing party. Object to such underhanded methods of bolstering the opinion.

Lastly, not only must the technique be reliable, but it must be proved so if demanded. The dissenting opinion in *Hernandez v State*, 55 S.W.3d 700 (Ap Ct Corpus Christi TX 2001), pointed out the general acceptance of the ADX analyzer (urinanalysis) in legal, medical and scientific communities. However, the majority ruling was based on failure of the state's witness to demonstrate such with clear and convincing evidence. One could reasonably assume, however reliable the machine, his use of it was far from reliable.

G. THE EXPERT MUST RECOGNIZE LIMITATIONS AS TO WHAT CAN BE DONE.

The Court of Criminal Appeals in *Emerson v State*, 880 S.W.2d 759 (Ct Cr Ap TX 1994), found that there are limitations to testing for horizontal gaze nystagmus but that the expert did not transgress those limitations, that is, the technique has a proper scope to which the expert adhered. The Court in *Smith v State*, 65 S.W.3d 332 (Ct Ap Waco TX 2001), stated that results of field sobriety tests and HGN are evidence only of impairment. It was error for the witness to tie them to a specific alcohol blood level, but the error was harmless because of results from a breathalyser test.

Respect for the proper limits of one's expertise and ability to give an opinion was shown by the expert in traffic accident reconstruction in *Sciarrilla v Osborne*, 946 S.W.2d 919 (Ct Ap TX Beaumont 1997). At page 922 it is reported: "His testimony was strictly limited to physical evidence obtained at the scene of the accident." That is followed up at page 923 with: "On cross-examination, the trooper confirmed the fact that he did not have an opinion as to what happened *before* the point where the physical evidence began, and did not know what caused appellant to lose control of her vehicle." [Emphasis in original.]

Besides not exceeding the capacity of the discipline or technique in question, one ought not go beyond one's own competence or the issue that one was qualified in by the court. In *Morton International v Gillespie*, 39 S.W.3d 651 (Ct Ap Texarkana TX 2001), Plaintiff's expert admitted his lack of technical qualifications, but at page 655 it is said he "never exceeded the scope of his qualifications nor the scope of the testimony for which he was offered as an expert. His testimony dealt primarily with the effect of a delay in the airbag's deployment on Mrs. Gillespie's motion during the collision, and not on the more technical issues related to airbags and airbag component technology."

In handwriting examination there are several factors which severely limit the opinion of the expert, one being very little writing available, whether questioned or exemplar. In *Strong v State*, 805 S.W.2d 478 (TX Ap Tyler 1990), a handwriting expert testified as to who made the entries in a notebook but could not identify the maker of the small amount of writing on the tabs.

H. THE PRIMARY CHALLENGE TO MAKE.

The primary challenge to any expert should be to explain and prove the objective validity of the underlying theory, because this is the very nature of expert evidence: *Specialized* knowledge beyond that of the common person. Therefore, we provide this system for examining on the literature and research supporting the opinion. Though it has been said in some cases that expert testimony might be based on the expert's own experience and skill, the authors think the better view, the more reasoned view and hopefully the increasingly dominant view, is that expressed in *North Dallas Diagnostic Center v Dewberry*, 900 S.W.2d 90 (Ct Ap TX Dallas 1995), at page 94: "The rule contains two hurdles that must be overcome before expert scientific testimony will be admissible. Proponents of expert testimony must establish: (1) that scientific, technical, or other specialized knowledge will aid the trier of fact; and (2) the expert witness is qualified to testify on the subject.

"Under the first prong, an expert's opinion should be based on an *existing body* of scientific, technical, or other specialized knowledge that is *pertinent* to the facts in issue.... The intent of this test is obvious: if the opinion the jury considers to reach its verdict is unreliable, the risk of an erroneous verdict increases.

"If the expert's field of knowledge does not have a scientific or specialized base, courts *should exclude* the evidence because the expert's opinion would be more likely to prejudice or confuse than to assist the trier of fact." [Emphases added.]

If the expert cannot explain the theory underlying a tool or technique, he could well be

inadmissible. Thus in *Ochoa v State*, 994 S.W.2d 283 (Ct Ap TX El Paso 1999), the state did not establish a proper foundation for admitting radar evidence, because, although the officer could say the radar gun calculates speed from the return rate of microwaves, he could not explain the theory underlying the calculation. However, the error in admitting it was harmless since defendant did not object to the officer's opinion that she was exceeding the speed limit. This and other cases point out the need to object to an opinion on all fronts which one reasonably can and also object to all the various approaches an expert uses to express the opinion. However, that attack has its limits. In *Fletcher v State*, 39 S.W.3d 274 (Ct Ap Texarkana TX 2001), where Defendant cited *Ochoa v State* to the effect that a chemist ought to have been qualified on knowledge as to how an electronic scale worked, the Court of Appeals rejected the argument.

I. HOW CAN ONE CHECK OUT THE OPPOSING EXPERT'S ASSERTIONS?

Many cases hold that the expert opinion must not be such that no reasonable expert in the particular field would agree, given the bases of the opinion. This is an application of the guideline discussed in Section V, Sub-section D, HEARSAY REASONABLY AND CUSTOMARILY RELIED ON.... A case in point is *Viterbo et ux. v Dow Chemical Co.*, where the District Court at 646 F.Supp. 1420, page 1424, states: "If underlying data is so lacking in probative force and reliability that no reasonable expert could base an opinion on that data, then an opinion which rests entirely upon that data must be excluded. [Citation omitted.] A trial court's inquiry into whether the standard is satisfied must be made on a case-by-case basis, and should focus on the reliability of the opinion and its foundation, rather than merely on the fact that it was based, technically speaking, upon hearsay." That seems to infer that one would have to be cautious in applying rejection of the proffered expert evidence in one case as being precedent for rejecting similar evidence in another, as well as not projecting one expert's inadequacy in one case, such as the government's *Daubert* expert in *United States v Starzecpyzel,* 880 F.Supp. 1027 (S Dist NY 1995), onto all others in the same discipline.

The Court of Appeals in *Viterbo*, 826 F.2d 420, gives full support to the trial court's rulings. At page 422 begins a discussion of Rule 703 concerning facts and data "of a type reasonably relied upon by experts in the particular field." The Court states: "As a general rule, questions relating to the bases and sources of an expert's opinion affect the weight to be assigned that opinion rather than its admissibility and should be left for the jury's consideration.... In some cases, however, the source upon which an expert's opinion relies is of such little weight that the jury should not be permitted to receive that opinion.... If an opinion is fundamentally unsupported, then it offers no expert assistance to the jury."

J. MAKING ONE'S OWN EXPERT APPEAR MORE CONVERSANT THAT THE OPPOSING EXPERT.

Consider what foundation the opposing expert has given in reports or previous testimony in the case. Determine what are specific areas in which your expert can provide an even better foundation, doing so by reviewing the various Sub-section and Item titles in this paper. If the opposing expert cited a standard book in support of an opinion, can your expert find another passage in the same book explaining how the previous passage is qualified in some way? Are there other standard texts with differing outlooks? Do recent journal papers show new developments which the authors of standard texts had not known about back when?

K. NON-LITIGATION USE.

Studies done without reference to any court action must of course be applied to the problem before

the court. Thus in *Merrell Dow Pharmaceuticals, Inc., v Havner*, 907 S.W.2d, at page 553: "The various studies used by both parties to this litigation were generally not prepared for litigation. The reanalysis of the raw data performed by the Havners' experts was prepared for litigation as was the analysis of existing studies performed by Merrell's experts."

What is said for non-litigation use of the theoretical bases of the expert opinion applies equally to other aspects of the expert's foundational material. Thus in *Waring v Wommack*, 945 S.W.2d 889 (Ct Ap TX Austin 1997), at page 892 it is stated that the expert noted that the two tests he used to develop data for his opinion at court had non-judicial uses.

L. SUMMARY CONSIDERATIONS.

An expert need not meet all these criteria, but only enough of them to establish the reliability of the theory. However, if the expert fails to meet a fair number of them, there could be a problem. Thus in *Forte v State*, 935 S.W.2d 172 (Ct Ap TX Ft Worth 1996), the defense expert in eyewitness reliability did not convince the trial judge of his own reliability. He produced no supporting literature, nor showed that his theory was empirically tested, conducted no research or studies on his own nor identified another who had tested his theory, nor did he give a rate of error. *Forte* is cited by *Fowler v State*, 958 S.W.2d 853 (Ct Ap TX Waco 1998), to the effect that the expert asserted that there was a very large body of literature, but he gave only one name of another claiming the same expertise. We suggest that in questioning the opposing expert ask only about those criteria for which you can show some lack. In questioning your own, ask about every one of them, demonstrating either how any lack is adequately made up for in some other factor or how the unfulfilled criterion is inapplicable. The same expert as in *Forte* also struck out in *Jordan v State.* At 950 S.W.2d, page 212, he offered this non-fit of his theories to the case: "All I can say, as a scientist, or somebody who talks to scientists, these are processes that operate in normal human processes to a greater or lesser degree. How much they operate in this case, I can't say." Conducting a proper and adequate pre-trial expert conference can save an attorney from such a courtroom Armageddon being brought about by one's own expert.

In keeping with the rule in both Federal and Texas courts, *Egan v Egan*, 8 S.W.3d 1 (TX Ap San Antonio 1999), states at page 4 concerning a real estate agent testifying as an appraisal expert: "Expert testimony which is not scientific in nature does not have to meet criteria appropriate only for scientific theory in order to be admissible." However, it "must still demonstrate the qualifications of the expert and the reliability of such testimony."

Finally, there is the question of how much of the underlying theoretical information the expert can testify to. The case *Ramirez v State*, 815 S.W.2d 636 (Ct Cr Ap TX 1991), holds at page 651 that the applicable rule "recognizes that experts rely not only on the facts given them during trial to form their opinions and draw inferences but also on their experience and training. Under Rule 705 an expert is required to disclose the facts or data underlying his opinion only upon direction of the court or cross-examination. Disclosing this information enables the jury to evaluate the expert's opinion and ascertain the weight it wishes to attach to such testimony." In light of that last sentence, make certain that your expert explains to the jury as much of the cogent theoretical underpinnings of the evidence as possible. On the other hand, give the opposing expert no opening to instruct the jury, so that you may argue to the jury how persuasive your expert was and how baselessly capricious the opinions of her counterpart were. The authors' most frustrating experiences as expert witnesses were when the attorney calling them asked for a bare opinion and never for any cogent reason why. Fortunately, the cross-examiner usually opens enough doors to let some compelling reasons slip through.

SECTION VII. METHODOLOGICAL BASES.

The primary focus in considering the expert's methodology should be whether it is applied correctly to the precise issue in fact in the instant case. Even where the scientific principle is admissible by statute, as it was noted by the Court of Criminal Appeals of an intoxilyzer test in *Hartman v State*, at 946 S.W.2d page 64: "Finally, unlike the first two prongs of the *Kelly* test, the third prong—whether the technique has been properly applied on the occasion in question—must necessarily be decided on a case-by-case basis."

To know whether there are grounds for challenging the application of the technique in a particular case, one must inquire into all aspects of the expert's methodology. The case *Kumho Tire Co., Ltd., et al., v Carmichael, et al*., underlines that point: "[T]he question before the trial court was specific, not general." So general reliability of the expertise did not prove that this expert's methodology in this case was reliable. Pose questions first as to the general reliability of the expert's method and then as to its specific reliability as applied in *this* case in testing or examining *this* evidential material to assist in deciding *this* factual issue. *Kumho* also reminds us that expert testimony is not proved reliable solely on the *ipse dixit* of the expert. The Court of Appeals in *Viterbo et ux. v Dow Chemical Co.*, 826 F.2d 420, at page 424 makes a very strong statement on the topic: "Without more than credentials and a subjective opinion, an expert's testimony that 'it is so' is not admissible."

However, while testing reliability of the specific fit, one must not lose sight of the necessity for a general scientific reliability of the opinion. Thus *Maritime Overseas Corp. v Ellis*, 886 S.W.2d 780 (Ct Ap TX Houston 1994), at page 787 cites two earlier cases which hold that "expert opinions unsupported by some type of well-founded scientific reasoning or methodology constitute mere speculation, insufficient to support a judgment." *Jordan v State*, at 950 S.W.2d, page 212, lists factors that may influence a trial court's determination of reliability. These include acceptance in the relevant scientific community, supporting literature, potential rate of error, availability of other experts to test and evaluate the technique, clarity with which the theory and technique can be explained, the expert's experience and skill in applying the technique, others with similar expertise, peer review, and validity research. In *Jordan* the expert seemed to have managed to leave the trial court dissatisfied on all counts, which should be some kind of Guinness World Record for expert witnesses.

How thorough one should be in covering all possibly applicable factors? *Minnesota Mining and Manufacturing Co. v Atterbury, et al*., 978 S.W.2d 183 (Ct Ap TX Texarkana 1998), offers an object lesson. The Court of Appeals gives six overall lacks in the testimony of plaintiffs' experts, some of them multiple, such as reliance on an unpublished abstract which was not peer reviewed and the expert did not know its methodology. These six are followed up with failure to meet six factors specific to rulings in *Daubert/Robinson/Havner*. This shows that one ought not leave any evidential stone unturned in presenting one's own expert evidence, while using every available stick to poke holes in an opponent's.

A. SOURCES OF THE EXPERT'S METHODS.

"Methods" is taken in its broadest meaning so as to include any procedure the expert employs. The major procedures are investigation, testing and analysis. In the various fields of forensic identification such terms as "comparative examination" represent particular methods of testing.

1. WHO DESIGNED IT?

In *Durham v State*, 956 S.W.2d 62 (Ct Ap TX Tyler 1997), the expert testified that he had himself

designed the test which he used and had followed it exactly. That was found acceptable.

Contrariwise, in *Sears, Roebuck & Co., et al., v Kunze*, 996 S.W.2d 416 (Ct Ap TX Beaumont 1999), appellee's expert, a former practicing physician who ran a firm testing the safety of power tools, created a one-time test specifically for the litigational problem submitted to him. Appellee had claimed injury from a defective power saw. The test which the expert performed was solely for trial, had never been done before, was not published or peer reviewed, and did not use a saw as being too dangerous. No rate-of-error information was offered. That ran against all the *du Pont* factors. The rule is given at page 424: "A test that a party offers at trial regarding how an accident occurred will be admissible only if the trial court determines that there is a substantial similarity between the test conditions and the accident conditions." This case also illustrates that, whereas an expertise, particularly one based on skill and knowledge derived from experience, might not have to meet the specific factors given in *du Pont*, it certainly must not violate them. An opinion might not be specifically scientific, but it surely ought not be anti-scientific.

One might create a test for a particular case as in *Tarrant Regional Water District v Gragg, et al.*, 43 S.W.3d 609 (Ct Ap Waco TX 2001), at page 617. Two hydrologists for Appellees "created a tailor-made [computer] model, which in the field of hydrology is an accepted practice.... The model merely helped with their calculations but did not advance a new or novel hydrological theory." Unlike the *Sears* case, they followed accepted practice in their field and did not manufacture evidence.

Do not be overawed by the authority for the method, since if not employed correctly it is not reliable. Thus in *Martinez, et al., v City of San Antonio, et al.*, 40 S.W.3d 587 (Ct Ap San Antonio TX 2001), at page 593 is described how one expert used an accepted EPA test to arrive at a conclusion, but "he employed his own independent methodology to calculate the amount of lead present in the dust emissions." That was in two steps, first taking results of engineers' measurement of the amount of lead in the soil. Then, deciding lighter particles would be more airborne, he applied an "enrichment factor," saying 3.3 times that became airborne. A second expert also used an acceptable EPA model, but relied on numbers which the first expert generated. Using unreliable data from another expert makes for an opinion lacking scientific reliability. The methodology is like a recipe in cooking, inadequate ingredients defeat the best recipe.

2. WHEN WAS IT DESIGNED?

Proving that a methodology has been long established enhances its credibility. For example, the case of *Perez v State*, 925 S.W.2d 324 (Ct Ap TX 1996), discusses the admissibility of testimony by a person who interviewed a child victim of molestation by using anatomically correct dolls. It was not a novel kind of evidence since the technique was described by published papers which went back 15 years. The much referred to anti-expert experts offer the supposedly devastating criticism that handwriting identification is made by a method essentially the same for 100 years or so. Under *Perez* such stability and proven performance is a virtue. Contrariwise, the criticism is akin to saying that human breathing is unscientific and unreliable since it has employed the same tools and methods for more than 3,000,000 years. Such sophistry itself is older than the art of logic which was developed to counter the sophists of ancient Greece. Thus it violates its own argument. Judging the merits of a theory or method by its age or youth is the epitome of pseudo-science.

3. WAS IT PUBLISHED OR PEER REVIEWED?

The expert in *American West*, 935 S.W.2d 908 (Ct Ap TX El Paso 1996), could not point to any publications supporting her method of treatment, a factor against admissibility of her opinion

testimony.

The value of publication and peer review applies to both theoretical and methodological aspects of science, though that value has limits. Thus the Supreme Court in *Merrell Dow Pharmaceuticals, Inc., v Havner*, at 953 S.W.2d page 727, states: "We do not hold that publication is a prerequisite for scientific reliability in every case, but courts must be 'especially skeptical' of scientific evidence that has not been published and subjected to peer review. [Citations omitted.] Publication and peer review allow an opportunity for the relevant scientific community to comment on findings and conclusions and to attempt to replicate the reported results using different populations and different study designs." This suggests that if a segment of a discipline is elitist and not freely communicating with the entire discipline, whatever the publications it distributes within its own ranks, it is not meeting these criteria. Presenting at presumably professional meetings that are closed to the public both as to attendance and distribution of papers afterwards is neither publication nor peer review.

Government regulations might set forth standards and procedures that an expert must follow. However, in *Ledesma v State*, 993 S.W.2d 361 (Ct Ap TX Fort Worth 1999), at page 369, a private DNA laboratory was not required to follow guidelines that the Texas Administrative Code sets for law enforcement agencies. However, failing to meet some guideline of equivalent stringency certainly ought not be a recommendation.

As valuable as it is perceived to be, peer review is not a *sine qua non*. The Court of Criminal Appeals in *Nenno v State*, 970 S.W.2d 549 (Ct Cr Ap TX 1998), states at page 562: "But the absence of peer review does not necessarily undercut the reliability of the [future dangerousness] testimony presented here. To the extent that a factfinder could decide that the absence of peer review cast doubt on the credibility of the testimony, such affects weight of the evidence rather than its admissibility." An article in the journal *Science* indicates peer review may not assure reliability in publications. Its vaunted value had itself never been subjected to peer review, and when it was it came up short (*Enserink 2001*).

In *Star Enterprises, et al., v Marze, et al.*, 61 S.W.3d 449 (Ct Ap San Antonio TX 2001), the proffered expert had submitted for publication no peer reviewed article in infectious diseases, a factor supporting his inadmissibility. So it might be good to have an expert who personally has written at least one of the peer reviewed authoritative articles supporting her opinion.

4. WHERE WAS IT TESTED FOR RELIABILITY?

There is a dual reliability when we speak of a scientific test or procedure: reliability of the method itself and reliability of this expert's use of the method in this case. Inquire into both as separate issues. Prove unreliability on either score, and the expert testimony might be excluded. As *DeLuca, et al., v Merrill Dow Pharmaceuticals, Inc., et al.*, 911 F.2d 941 (3 Cir 1990), states at page 954: "Rule 702's helpfulness requirement implicitly contains the proposition that expert testimony that is based on unreliable methodology is unhelpful and therefore excludable."

The Court of Appeals in *Forte v State*, 935 S.W.2d 172 (Ct Ap TX Ft Worth 1996), at page 176, found that testimony of the licensed clinical psychologist was relevant, but it must also be found reliable: "To find that scientific evidence is reliable, it ought also to have been shown that the evidence had as its basis 'sound scientific methodology'.... This demands a certain technical showing." The Court went on to cite the criteria and factors given in *Jordan* and *Kelly*.

The Court in *Fowler v State*, 958 S.W.2d 853 (Ct Ap TX Waco 1998), at page 864 said of the family violence expert: "Apart from establishing her qualifications and experience, not a single *Kelly* factor was met." That would seem to be a failure most difficult to achieve.

A particularly thoroughgoing explanation of the reliability of the technique for extracting and

identifying DNA is given in *Hicks v State*, 860 S.W.2d 419 (TX Cr Ap 1993). One could not go wrong in having one's own expert of whatever discipline cover the same factors for any relevant expertise. The State's experts testified that the technique used for extracting DNA "is a reliable and widely accepted technique in the scientific community." Also, "the protocol was more than sufficiently rigorous to ensure reliable results. According to Caskey, a false positive finding was impossible because if the procedures were not correctly followed, no match could be obtained." Finally, "the procedures utilized had the ability to exclude suspects absolutely...." Any forensic discipline with demonstrated ability to do all that is indeed helpful to the fact finder.

5. RATE-OF-ERROR AND COMPETENCY TESTING.

Both of these are a kind of reliability testing, though some seem to have made them into sacred cows of science, if not the very deistic idols themselves. As to the claim that but one rate-of-error method yields proof of scientific reliability, more than one case in Texas throws such a contention into the litigational waste basket. The Court of Appeals in *Nations v State*, 944 S.W.2d 795 (Ct Ap TX Austin 1997), says at page 801: "Dr. Phelan testified that she had done a great deal of research on memory in connection with evaluating and treating children and adults who had been sexually abused. Dr. Phelan demonstrated sufficient clarity in explaining her theories to the court in the hearing outside the presence of the jury. Although there was no discussion of the potential rate of error, the other six [*Kelly*] factors were sufficiently satisfied that we believe the proponent met his burden of establishing the admissibility of this expert's testimony."

The Court in *Roberson v State*, 16 S.W.3d 156 (TX Ap Austin 2000), found the purpose of rate-of-error studies was satisfied, though there had been none, stating at page 168: "The testing analyst was subject to periodic blind proficiency testing and had never been advised of having made a false match. The lack of error rate for the lab itself would go more to the weight than the admissibility of the DNA evidence."

As Section IX will show, classical authors in handwriting expertise have provided courts and attorneys with something far better than any rate-of-error study can. No rate-of-error study can tell you *this* expert's rate of error unless he participated in the study and you can access his score, nor can any established rate of error be logically translated into confidence in the specific conclusion about specific evidential material in a specific case. To assume so is to live in a fool's paradise. You need a method to test probability of error for *this* specific expert opinion. Only good, old fashioned cross-examination will do that.

In all cases surveyed for this book, the authors recall only two where a specific rate of error was given for human experts. We mentioned a rate of correct finds of 49 out of 50 for hydro-carbon sniffing dogs. For one of less than a handful of human expert rates of error, we rely on the word of the defense expert in *Sattiewhite v State*, 786 S.W.2d 271 (Cr Ap TX 1989), who testified at page 290: "He further testified regarding studies which indicate psychologists are only able to successfully predict future dangerousness 33% of the time." Most of us would not call that prediction, but only a good guess enhanced by the fact that they would be making these "predictions" only about criminals who had proven themselves quite dangerous on specific occasions so as to be convicted for it. Analogously, it would not take much skill to predict that a certain percentage of people at a given Dallas Cowboys game will attend another in the future and thus hit a high percentage of accuracy. Since the rate of recidivism for both dangerous felons and Dallas Cowboys fans is easily ascertained, one already knows the chances of getting a blanket prediction correct. In actual fact, psychologists ought to do a lot better than 33% with felons already convicted of criminally endangering others. Yet there may be a major fallacy in the success rate of 33%; for, if those kept locked up or executed are

included within the 33% correct predictions, who can tell with certainty if the person would have been again violent or not?

The second case is *Tarrant Regional Water District v Gragg, et al.*, 43 S.W.3d 609 (Ct Ap Waco TX 2001). Gragg's experts gave an error rate of 10% for a computer model, which was not disputed by the District. No indication is given how the rate was arrived at. In *Muhammad v State*, 46 S.W.3d 493 (Ap El Paso TX 2001), at page 508 it is said of standard psychological tests: "Dr. Schutte discussed the potential rate of error for each test, which appears to be well established and accepted.... We do not find any rate of error exposed here which might properly cause the exclusion of evidence on these tests." No specific figures are given in the case report. Given the abysmally low reliability for psychological assessment reported in *Sattiewhite*, the numbers might be too embarrassingly low to advertise. Dr. Schutte was also to testify in part as to future dangerousness.

Some factor may prevent rate-of-error studies being undertaken so that they could never be required. Thus *In the Interest of D.S., D.S., D.S., and C.R.R.*, 19 S.W.3d 525 (TX Ap Ft. Worth 2000), at page 529 the physician explained that no rate-of-error study existed for determining whether burn patterns on a child indicated an accident or deliberate abuse, since it is unethical to conduct experiments by scalding children.

At least one court seemed to tolerate studied avoidance of available rate-of-error studies. In *J C Penny Life Insurance Co. v Baker*, 33 S.W.3d 417 (Ct Ap Ft. Worth TX 2000), at page 425 the expert "acknowledged that there were pathology journals and articles that analyzed and provided error rates for his theories, 'but admitt[ed] he was not familiar with the names or even the contents of these works.'" There is nothing so prudent as avoiding possibly inconvenient knowledge. However, there is no indication that Defendant cross-examined from these learned treatises, a failure which could be a major tactical mistake.

6. CONSISTENCY IN APPLYING THE EXPERT METHOD.

In *U.S. v Velasquez*, 33 Virgin Is. 265 (3 Cir 1995), at page 277 some of the questioning of the prosecution's handwriting expert, Lynn Bonjour, is given. She gave succinctly and very clearly an intelligent methodology which she always followed. In questioning an opposing handwriting expert or interviewing one under consideration, an attorney could well use *Velasquez* as a guide. If the expert fails to incorporate all the elements which Ms. Bonjour delineated, some degree of competence is lacking to the degree of such failure.

Inherent variables will work against consistency, and thus reliability, in a technique. In the driving-while-intoxicated case of *Slagle v State*, 570 S.W.2d 916 (Ct Cr Ap TX 1978), it was held that "the admissibility of the breathalyser examination test has long been acknowledged, provided the proper predicate is established..... The State does not have to establish as part of its predicate that the breathalyser examination is a scientifically reliable test before the results are introduced." However, the variables bearing on the reliability of the results, such as a person's weight, are presumed to have been known to, and taken into account by, the legislature when it made the breathalyser admissible by statute. The defendant would have the burden of establishing that such variables work in his case, and they would go to the weight and not the admissibility of the technique. In *Slagle* the jury apparently chose to disregard them.

In *Codner v Arellano*, 40 S.W.3d 666 (Ct Ap Austin TX 2001), Plaintiff's expert, a licensed engineer, admitted that, in determining why a foundation became irregular, he had not followed guidelines he himself had established, such as check vegetation near the house. The attorney must do the necessary homework to be sure the opposing expert does not vary his method with the particular case.

B. RECOGNITION WITHIN THE PARTICULAR DISCIPLINE.

In the *American West v Tope*, 935 S.W.2d 908 (Ct Ap TX El Paso 1996), an expert was successfully challenged in part because she did not follow generally recognized techniques in her field and had not administered traditional psychological tests. Among specific challenges which could be mounted against an expert's methodology are its use or nonuse by other experts, the availability of alternatives, and institutional recognition.

1. WHO ELSE USES IT?

This comes down to how accepted the method is. As it is stated in *DeLuca, et al., v Merrill Dow Pharmaceuticals, Inc., et al.*, 911 F.2d 941 (3 Cir 1990), at page 956: "[T]he district court is permitted to identify relevant scientific communities and make determinations about degree of acceptance of [the expert's] methodology within those communities."

In *Reid v State*, 964 S.W.2d 723 (Ct Ap TX Amarillo 1998), the expert testified that "dozens and dozens and dozens" of other experts employed the same method of diagnosis and the method was generally accepted. By contrast, plaintiff's expert at trial in *Kumho Tire Co., Ltd., et al., v Carmichael, et al.*, had his own way of testing tires. No other expert used his method, nor could he cite any articles to support it. This was quite different from the situation in *Durham v State*, discussed above. In stark contrast is the statement at page 957 of *Thompson v Mayes*, 707 S.W.2d 951 (Ct Ap TX 1986) : "The trial court did not abuse its discretion in refusing to admit this testimony, especially after the expert conceded that he did not know of any other instance where a psychological autopsy had been used in this manner." He had been offered to show that a person, who later committed suicide, had not intentionally killed another.

One would do well to follow the good example of the psychiatric expert in *Matthews v State*, 40 S.W.3d 179 (Ct Ap Texarkana TX 2001). At page 184: "He testified about the field of psychiatry and the ways in which various tools and tests have been formulated to assist psychiatrists in evaluating patients. He also emphasized that face-to-face interviewing is critical in making a determination about sanity, because the determination is made not as a result of a single particular test but as the result of a combination of factors that vary with each individual. He emphasized that it is a judgment call...." He thus seemed to have covered the proper methods, their relative merits, how they were employed, and how he properly made an evaluation of the patient.

2. WHO USES ALTERNATIVE METHODS?

By ascertaining what alternative methods are available you can mount a challenge on one of two fronts. First, did the expert use the wrong method in this case for what had to be ascertained? Second, might use of multiple methods in the same case yield critical data no single method could? By ascertaining what methods other experts in the field use, you may be able to show a lack of general acceptance for the actual method the opposing expert employed. Each of these showings would probably go to the weight and not admissibility of the testimony. However, when you let your own expert explain with aplomb how she covered these same points with thoroughness and precision, the credibility of her opinion will be enhanced.

Experts for opposing sides may use different methods in forming opinions on the same issue, just so long as each is shown to be reliable. For example, in *Guadalupe-Blanco River Authority v Kraft*, 39 S.W.3d 264 (Ct Ap Austin TX 2001), each party's expert used a different method to form an opinion on the value of condemned land. Any flaws were things to be tested "in the crucible of adversarial proceedings." The jury had a right to consider both methods and both opinions based on them.

3. ADOPTED BY ANY TRAINING COURSES, SCHOOLS, ETC.?

In *Emerson v State*, 880 S.W.2d 759 (Ct Cr Ap TX 1994), it was found that standardized procedures were established in testing horizontal gaze nystagmus, that those in the field were trained in such procedures and that the expert had followed them in the instant case. In *Reid v State*, 964 S.W.2d 723 (Ct Ap TX Amarillo 1998), it was pointed out that the diagnosis of Munchausen Syndrome by Proxy was taught in medical schools.

C. INQUIRY INTO THE METHOD.

In *Kelly v State* several of the following factors are shown to support the reliability of the DNA testing offered by the State. At 792 S.W.2d, page 585, the Court discusses application of the relevancy standard: "Appellant did not produce any expert testimony challenging the principles, procedures, and technology of the tests generally, nor did appellant produce any testimony challenging the particular tests done in this case. The only defense expert, John Castle, did not disagree with the basic science and had no problems with the isolation of DNA.

"The evidence before us shows that Lifecodes' procedures were confirmed by empirical validation. Studies had twice shown that Lifecodes made no mistakes and outside scientists had reviewed and verified both the procedures and the results."

1. DID THE EXPERT TAKE FULL NOTES OF THE ENTIRE PROCESS?

In *American West Airlines, Inc., v Tope*, 935 S.W.2d 908 (Ct Ap TX El Paso 1996), the expert did not take notes of her interview sessions with appellee, one of several factors against the admissibility of her opinion. If an expert eschews taking of contemporaneous investigative notes and relies on memory for later analysis, one may suspect that the expert's memory is selective and/or creative.

The kinds of things the expert should note and be able to testify to are described in *North Dallas Diagnostic Center v Dewberry*, 900 S.W.2d 90 (Ct Ap TX Dallas 1995), where they were all absent from the expert testimony. At page 96 the Court of Appeals says: "Specifically, the *voir dire* examination of Dr. Ross contains no evidence of (i) the conditions under which Dewberry's tests were performed, (ii) the standards controlling the technique's operation or whether any such standards existed, (iii) who performed the tests, (iv) how the testing technique related to the substance, Angiovist-282, and (v) whether this particular type of testing has been performed in the past to determine sensitivity to contrast media. In essence, there was no evidence concerning this testing technique as it specifically related to Dewberry and her condition."

2. WHAT ARE THE PRECISE STEPS TAKEN, IN THE ORDER IN WHICH THEY WERE TAKEN?

In *Brown v State*, 881 S.W.2d 582 (Ct Ap TX Corpus Christi 1994), the expert explained the step-by-step analysis used to extract, analyze and compare DNA.

The authors believe that every expert analysis should cover the following steps in some manner, though not necessarily in the order given. They are illustrated as for a handwriting expert:

(a) The problem is posed to the examiner clearly and precisely as a factual enquiry; ex. gr.: Did or did not decedent write this signature?

(b) The expert assesses skills, tools and materials required and available to do the work. If an essential is missing, the commission is declined or referred elsewhere.

(c) The disputed material, such as a questioned signature, is assessed for its sufficiency as examination material. Can any deficiency be supplied?

(d) The control material, such as authenticated exemplar signatures by the suspect, is assessed

for its sufficiency as comparison material. Can any deficiency be supplied?

(e) What are the identifying notes of the disputed material considered in and of itself?

(f) What are the identifying notes of the control material considered in and of itself?

(g) A comparison of the two sets of notes is made. Which notes indicate common authorship and which notes indicate different authorship? Some authors in handwriting identification say that we must start at this point, figuring the differences between the two writings. As you can see, start here and much of the science, work and professional responsibility has been skipped.

(h) Could indications of identification between the disputed and control materials in and of themselves, without reference to other traits, suffice to prove a common source or cause?

(i) Could indications of non-identification between the disputed and control materials in and of themselves, without reference to other traits, suffice to prove a different source or cause?

(j) Under either hypothesis of common or different source or cause, is there a reasonable explanation for the contrary indications?

(k) Might other material be required to resolve the matter?

(l) Once an initial opinion of common or different source or cause is arrived at, one or more reliability checks are run.

(m) What qualification of the opinion is required because of any limitations encountered at any point in the analysis? The qualification is expressed in standardized terminology.

(n) When a scientifically viable opinion is formed, the appropriate report in the circumstances is prepared and rendered to the inquirer.

(o) Throughout the process, proper records are made and kept, proper handling/safeguarding of all materials is assured, and the chain of custody is properly maintained and recorded.

(p) Further work is done as required, such as trial preparation.

These steps need not be taken precisely in the order given, and some may have to be revisited. However, a lack in any one of them could make for an impeachable expert opinion and potentially excludable opinion.

3. WHAT TOOLS OR EQUIPMENT WERE USED AND HOW USED?

In *Parish v State*, 165 S.W.2d 748 (Ct Cr Ap 1942), the state's handwriting expert from the Public Safety Department is described as employing sophisticated procedures giving an accurate and verifiable reading of an erased signature. Oblique lighting and photography were among the techniques employed.

4. WHAT TIME WAS REQUIRED TO PERFORM THE METHOD?

This is important in order to check the accuracy of billings generated by the expert. Also, in requiring a detailed account of time factors involved, you might uncover some improbability in earlier claims by the expert. A friend of the authors was involved in a case where a famous document examiner testified to his many publishing and lecturing activities, along with his massive professional work. Obtaining times purportedly involved in all these activities, the cross-examiner demonstrated that there were not enough days in the year and hours in the days for him to have performed all the work allegedly performed in the case at hand.

5. WERE THERE SYSTEMATIC, THOROUGH OBSERVATIONS?

Make an opposing expert delineate, in precise order and detail, every observation that his method requires him to make. Then make him state each and every one of those observations.

6. RELIABILITY CHECK OR RETESTING PERFORMED IN PREPARATION FOR TRIAL.

In *Brown v State*, 881 S.W.2d 582 (Ct Ap TX Corpus Christi 1994), the expert testified to the quality assurance program used in the FBI Laboratory's DNA Section. A second examiner reviewed the case if the first examiner reported that a match was made. Further, the unit manager reviewed it all before releasing the results.

7. RELIABILITY TESTING OUTSIDE OF THE LITIGATIONAL CONTEXT.

This discussion will also include proficiency and rate-of-error testing.

In *Kelly v State*, as quoted at the beginning of this Sub-section C, Lifecodes had conducted reliability testing of its DNA procedures outside of the courtroom context, demonstrating a high degree of accuracy and thus of reliability.

The Court of Appeals in *Nations v State*, 944 S.W.2d 795, threw a strike out curve to those who contend that a rate-of-error study is essential to prove scientific reliability. The expert in that case met all of the *Kelly* factors except a showing of the rate of error, and so it was reversible error not to permit the proffered testimony. In *Sexton v State*, 12 S.W.3d 517 (TX Ap San Antonio 1999), the ballistics expert testified to 100% accuracy in his method. Though that "does not conclusively establish the overall reliability..., it provides at least some evidence of the possible rate of error, or lack thereof, in the process." At page 521. However, the Court of Criminal Appeals, 93 S.W.3d 96, 2002 Tex Crim. App. LEXIS 194 (TX Ct Cr Ap 2002), said that rate of error weighed in favor of exclusion, since his cited sources supported no such assertion of accuracy. Further, the expert did not have the magazine that he said the casings were cycled through and so could not make test casings for comparison.

D. IS THE METHOD RECORDED ANYWHERE?

1. WHERE IT IS RECORDED?

The only way a claimed method can be verified and double checked is if it is known where the written procedure is to be obtained. Demand to know where it is recorded and force production of a copy. In an early case for one of the authors, forcing a bank to produce its method for verifying signatures on checks to be processed showed the procedure was not followed but would have uncovered the forgery if it had been. Like that bank, experts probably neglect the established procedure they claim to have. Prove that they do, and you prove unreliability.

2. DID THE EXPERT REFER TO THE WRITTEN METHOD AS HE WENT ALONG?

The authors believe that every kind of expert witness ought to be subject to this kind of thorough inquiry into the expert's method. We realize that there is opinion to the contrary. The Court of Appeals in *Nations v State* 944 S.W.2d 795, at page 800 states: "To qualify as scientific knowledge, an inference or assertion must be derived from the scientific method and must be supported by appropriate validation," citing *Daubert*. Then the Court goes on to say that *Daubert* ought not be applied to the social sciences or where the expertise is based on the witness' experience which is not empirically verifiable. That is counter to the later *Kumho* decision that all expert testimony must be proved both relevant and reliable before being admitted, and it is also counter to the *Kumho* statement that the expert's reliability cannot be established by the expert's own *ipse dixit*. The authors believe that to permit any expert evidence which is in no way empirically verifiable is to issue an engraved invitation to all manner of hired guns, well experienced no doubt, but mostly in agreeing with whoever signs the retainer check.

SECTION VIII. MISCELLANEOUS INQUIRIES.

This includes all items which do not fit into any of the above divisions, though some of them appeared incidentally in discussion of other factors.

A. SPECULATIVE OPINIONS.

Expert testimony may not be speculative. There are several grounds on which an expert opinion can be challenged as speculative. In *Avila v State*, 954 S.W.2d 830 (Ct Ap TX El Paso 1997), at page 839 the Court of Appeals states: "Texas courts have traditionally rejected the attempt to offer any testimony, other than that of the accused, concerning his mental state at the moment he committed the crime. Such testimony was considered speculative and unreliable." A narrow exception was created in cases where a defendant is a victim of domestic abuse, but the expert in *Avila* did not address the issue of domestic relationship, only that of training as a police officer.

Mitchell Energy Corp. v Bartlett, et al., 958 S.W.2d 430 (Ct Ap TX Fort Worth 1997), states at page 446: "Causation cannot be established by mere guess or conjecture; it must be established by evidence of probative value." See also the discussion of the *Broders* case in Section I, Sub-section C, Item 1.

However, speculation seems in some degree to be approved if given in the right situation. In *Gonzales v State*, 4 S.W.3d 406 (TX Ap Waco 1999), at page 417: "Expert witness testimony that a child victim exhibits elements or characteristics that have been empirically shown to be common among sexually abused children is helpful to the jury." At page 418 it is said that the expert in child sex abuse did not testify concerning the abused child but only replied to hypothetical questions by saying a child "might be likely to retract or recant her sexual abuse allegations" for several reasons. In other cases the word "might" supported finding of a merely speculative opinion. There is no indication that she addressed on direct, nor was asked on cross-examination, whether the same hypothetical child might recant an accusation because it had been a fib or how one can tell whether this particular child fit the "Child Sexual Abuse Accommodation Syndrome." Yet she was said to have been helpful to the jury.

If there is a reasonable belief that danger exists, it is not speculation to act on the assumption that the danger is there. Thus in *Ocomen v Rubio*, 24 S.W.3d 461 (Ct Ap TX Houston 2000), defendant doctor acted properly in removing portion of plaintiff's bowels even though the removed portion turned out not to have a perforation. Prior to the operation, all symptoms favored the real possibility, while the smallest perforation of the bowels is extremely dangerous. However, if an opinion is directly opposed to established facts, it is speculative, particularly if the expert acknowledged the facts earlier. Thus in *Buls v Fuselier*, 55 S.W.3d 204 (Ct Ap Texarkana TX 2001), at page 209 it is said that opinions of Plaintiff's expert "were highly speculative." His opinions were contrary to what he himself had reported. He opined that foot surgery was not necessary because Buls had no bunions, while he had reported "moderate bunion deformity." Also, he based his opinion "on rumors and hearsay statements from nonparties." Gossip is not a reliable basis for admissible expert opinions.

In *SBC Operations, Inc., v The Business Equation, Inc.*, 75 S.W.3d 462 (TX Ap San Antonio 2002), award for lost profits was reversed because three experts' opinions were speculative, being based on assumptions which had no basis in fact. The first calculated lost profits based on many factors, none of them actual data from the test launch. The second expert used sophisticated calculations based on certain assumptions derived from his experience, "Unfortunately, these assumptions had no basis in fact." At page 469. For example, he calculated a 50% response to telemarketing while the test launch had only a 2.50% response. The third expert testified regarding

the terminal value based on the second expert's calculations of future cash flow, "thus, there is no evidence of BizLink's terminal value." At page 467 the Court stated: "What constitutes reasonably certain evidence of lost profits is a fact intensive determination..... Profits that are largely speculative...cannot be recovered."

B. SPECIFIC FIT TO ISSUES IN THE INSTANT CASE.

All aspects of expert evidence must have a specific fit to the fact in issue which is the subject of expert evidence in the instant case. That means the precise issue and precise expertise that it requires must be clearly defined. In *Helena Chemical Co. v Wilkins, et al.*, 18 S.W.3d 744 (TX Ap San Antonio 2000), at page 753 appellant's challenge to appellees' expert on the qualities of a seed is turned away on that score: "The central issue regarding Pleunneke's qualifications is *not* whether he is qualified to render an opinion with respect to Cherokee's inherent susceptibility to charcoal rot. *Instead*, the issue regarding his qualifications is whether he is qualified to render an opinion regarding Cherokee's suitability for dry land farming." Thus he need not be a plant pathologist. The key question becomes skill: "Is he *able* to marshal the necessary observations in support of his conclusions?" [Emphases in original.] As a plant scientist and agronomist, he could do what was needed: "He used his experience to formulate a conclusion on the basis of research, study or independent tests, and observations regarding Cherokee's suitability for dry land farming."

1. SPECIFICITY OF QUALIFICATIONS.

The expert must be qualified not only generally in the field of expertise involved but in the skill and knowledge needed by the specific issue of fact to be addressed. Thus the Court in *Broders, et al., v Heise*, 924 S.W.2d 148 (TX 1996), at page 153 says that disqualifying an emergency room physician as expert on neurosurgical treatment does not mean that only neurosurgeons can testify in that particular field: "The [Federal] Fifth Circuit, for instance, has focused, as we do, on whether the expert's expertise goes to the very matter on which he or she is to give an opinion." And later: "What is required is that the offering party establish that the expert has 'knowledge, skill, experience, training, or education' regarding the specific issue before the court which would qualify the expert to give an opinion on that particular subject." This last is quoted, and thus confirmed, by *United Blood Services v Longoria*, 771 S.W.2d 663 (Ct Ap TX Corpus Christi 1989); reversed after remand, *Longoria v United Blood Services*, 907 S.W.2d 605 (Ct Ap TX Corpus Christi 1995); reversed and rendered, *United Blood Services v Longoria*, 938 S.W.2d 29 (TX 1997). See also *Star Enterprises, et al., v Marze, et al.*, 61 S.W.3d 449 (Ct Ap San Antonio TX 2001), where board certified orthopedic surgeon offered a scientifically unreliable opinion, having no special training in internal medicine or infectious diseases. Also *Tomasi v Liao, et al.*, 63 S.W.3d 62 (Ct Ap San Antonio TX 2001).

In questions of applicable medical standards, *Blan v Ali*, 7 S.W.3d 741 (TX Ap Houston 1999), notes that the applicable statute focuses not on the area of medical expertise but on the specific condition involved in the claim. In *Blan* the condition was a stroke with lupus; thus the issue was the proper care for such a patient. Therefore, although one treating physician was an emergency room physician and the other a cardiologist, and plaintiffs' medical expert knew nothing of the standards of care for those specialties, at page 746 it is said of the latter: "His affidavit states that the standard of care he describes applies to *any* physician treating a patient suffering from a stroke and lupus, regardless of the physician's area of expertise." [Emphasis in original.] Thus, it was abuse of discretion to refuse admittance to plaintiff's expert on the relevant standard of care.

The case of *Ford Motor Co. v Aguiniga, et al.*, 9 S.W.3d 252 (TX Ap San Antonio 1999), suggests that one define the specialty correctly. Defendant Ford argued plaintiff experts were not

automotive experts. The Court noted that one was a metallurgist testifying to corrosion and markings on metal parts while the other was an electrical engineer with expertise in relays testifying to their proper design. Metal and relays in automobiles are still metal and relays, subject of the expertises considering those entities wherever they are employed.

Riddick v Quail Harbor Condominium Association, Inc., 7 S.W.3d 663 (TX Ap Houston 1999), suggests a way to show that your expert is specifically more qualified in the issue of fact than the opposing expert, though there is no indication the suggestion was intended. The foundation of appellant's unit shifted because the soil underneath shifted. The suggestion by appellee's expert was to put sprinklers in so that the moisture content of the soil would be constant. It worked. The opposing suggestion was to add piers, a suggestion offered without supporting confidence by its author. If the prognostications of your expert have likewise been proven right *vis-a-vis* those of the opposing expert in some aspect of the case, bringing this to the attention of the fact finder would underline which of the two is more perspicacious.

However, be certain your expert's suggestions, meant to show how precisely correct his opinion as to defects is, will not come back to haunt you as happened for plaintiffs in *Guzman v Synthes (USA)*, 20 S.W.3d 717 (TX Ap San Antonio 1999). Their expert, who said a fracture fixation plate was defective, made suggestions on improving its manufacture. He had to admit that each suggestion would make the plate worse in some other way, nor was there evidence that alternative designs were scientifically or economically feasible when the plate was manufactured. The only specificity proven was how specifically off mark he was.

There are reasonable limits to how specific a challenge can be. In *Fletcher v State*, 39 S.W.3d 274 (Ct Ap Texarkana TX 2001), a complaint that the chemist was not qualified specifically in weighing of the controlled substance in question was rejected. Knowledge on how to weigh substances is subsumed in field of chemistry, since chemists routinely weigh substances. At page 278 it is noted: "Witnesses do not have to be qualified as experts to testify about their use of any and every skill. Jurors are sufficiently familiar with the concepts of weights and scales to understand testimony concerning what a substance weighs and to decide facts based on that testimony." This reasoning might be potent to turn away a challenge against your expert.

2. SPECIFICITY OF THE OPINION.

The expert opinion itself must be directly relevant and have a specific fit to the fact in issue, otherwise the opinion can offer no assistance to the fact finder. Thus in *Purina Mills, Inc., v Odell*, 948 S.W.2d 927 (Ct Ap TX Texarkana 1997), evidence by plaintiff's experts for the source of hardware disease in cattle did not point to defendant's feed product any more than to other potential sources of metal contamination.

Likewise in *Williams v State*, 895 S.W.2d 363, the prefatory summary says in part: "The Court of Criminal Appeals, Campbell, J., held that expert testimony that defendant's psychological test results were not compatible with the profile of the type of person who would make harassing telephone calls of a sexual nature would not have been helpful to the jury and, thus, was not admissible without testimony specifically applying the generic profile testimony to the actual characteristics possessed by the defendant."

3. SPECIFICITY OF KNOWLEDGE.

The expert's special knowledge must enjoy a specific fit to the fact at issue, whatever other qualifications he has. Thus the quotation can be repeated from *Holloway v State*, 613 S.W.2d 497 (TX Cr Ap 1981), which states at page 501: "Merely that the witness has professional credentials or

occupational status in a calling which relates to the matter in question is insufficient to qualify him [to give opinion testimony]. Rather, it must be shown that he possesses special knowledge upon the specific matter about which his expertise is sought."

C. SUFFICIENCY OF EVIDENCE.

A claim is legally sufficient if it has more than a scintilla of evidence. Evidence is more than a scintilla when it rises to a level enabling "reasonable and fair-minded people to differ in their conclusions." *Mitchell Energy Corp. v Bartlett, et al.*, 958 S.W.2d 430 (Ct Ap TX Fort Worth 1997), at page 446. Many other courts have said the same thing, particularly when affirming summary judgments for defendants.

An opinion might be insufficient because it fails to address the fact needing to be proved. In *Duperier v Texas State Bank*, 28 S.W.3d 740 (Ct Ap TX Corpus Christi 2000), the expert missed the mark. At page 748 is described how the Bank's expert testified that the securities firm had not done enough due diligence and so the salesman had made a material misrepresentation when he said more due diligence had been done on the notes in question than on other notes. The Court of Appeals noted how that was inadequate to prove misrepresentation: "While this testimony indicates Howard Weil's due diligence may have been lacking, it does not controvert Duperier's statement that Howard Weil performed more due diligence on these notes than on any others. There is no evidence comparing the amount of due diligence performed on these notes with that performed on others. Thus the bank did not prove Duperier's statement regarding due diligence was a misrepresentation."

Meeting the sufficiency rule by a well integrated combination of different but related fields of expertise is illustrated in *Woodlands Land Development Co., L.P., v Jenkins*, 48 S.W.3d 415 (Ct Ap Beaumont TX 2001). Plaintiffs three experts were a real estate inspector, a real estate broker, and a civil engineer. The inspector testified to finding 15 problems, and the broker testified to costs of repairs for them. The engineer testified to structural defects and costs of their repair. The report describes how together the three supported a jury verdict in favor of Plaintiff for costs of repairs.

At page 121 of *Herndon v State*, 543 S.W.2d 109 (TX Cr Ap 1976), conviction for bookmaking was affirmed as sufficient in its totality: "This is a circumstantial evidence case, but it is not necessary that every fact point independently and directly to appellant's guilt.... The unusual and striking code name similarities, the similar or identical handwriting, and the sums of money reflected in State's Exhibit No. 5 and State's Exhibit No. 8, the 'settle up' sheet found on appellant's person, show appellant's knowledge and culpability...." An expert in cryptography had deciphered the code employed.

D. DEMONSTRATIVE EXHIBITS.

The Court of Criminal Appeals states in *Pierce v State*, at 777 S.W.2d page 413: "In order for a drawing or photograph to be admitted as evidence, the proponent of the item must be able to prove that the depiction is an accurate representation of what it purports to depict. [Citations omitted.] The adoption of new Rules of Criminal Evidence has made no change in the predicate required for admission of photographs and drawings." In this case an architect could not say whether his drawing of a police lineup was accurate or not, so it was properly excluded.

A unique "demonstrative exhibit" was used in cross-examination in *Olin Corp. v Smith*, 990 S.W.2d 789 (Ct Ap TX 1999). Eye witnesses, applicable scientific principles, testing of the gun in question and their own past professional experience supported plaintiff experts' theory of "hangfire," the late firing of ammunition. Appellant's defense expert at trial theorized that the injured hunter had shot himself by firing the cartridge twice. When challenged to demonstrate how it could happen, he

could not make his theory operate practically, as described at page 794: “Finally, while Fagg was on the witness stand and under cross-examination, he could never demonstrate how his theory could have occurred. When Fagg attempted to replicate the accidental shooting as he theorized it, it was necessary for him to manually pick the cartridges out of the revolver in order to leave three spent shells in the chamber.” Ironically, appellant argued on appeal that appellee’s experts’ testimony “was unreliable because it was anecdotal and was not based on any scientific tests.”

E. FINANCIAL INTERESTS OF EXPERT.

Where an expert can be shown to have a positive financial interest in the outcome of the case, that becomes greatly weighted against credibility. An especially egregious example is given in *Viterbo et ux. v Dow Chemical Co.*, 646 F.Supp. 1420, at page 1425. After listing many failings of the expert’s theoretical and methodological bases, the District Court states: “Most important, Singer sought employment from the plaintiff’s attorneys in this case; thus, he, like Johnson, did not view Viterbo’s condition objectively. As stated in *Johnston v. United States*, 597 F.Supp. 374 (1984), where an expert becomes an advocate for a cause, he therefore departs from the ranks of an objective expert witness, and any resulting testimony would be unfairly prejudicial and misleading.” That the Court should say “most important” clearly indicates that this factor loomed larger in the Court’s mind than any technical and theoretical factor that was lacking.

F. UNCONTRADICTED EXPERT TESTIMONY.

Even if only one party offers expert evidence, as a general and long standing rule the fact finder is not bound by opinion testimony. See, for example, *Simmonds, et al., v St. Louis, B. & M. Ry. Co.*, 127 TX 23, 91 S.W.2d 332 (1936), and *Merchants’ and Farmers’ Cotton Oil Co. v Cufkin National Bank*, 34 TX Civ Ap 555, 79 S.W. 651 (1904). However, if there is no other evidence before the court, uncontradicted expert testimony which is the only evidence should prevail. Thus, in *Cecola v Ruley*, 12 S.W.3d 848 (TX Ap Texarkana 2000), the only evidence before the trial court that a property could not be partitioned in kind was from appellant’s expert witness. The trial court’s ordering of a partition in kind was overturned as “against the great weight and preponderance of the evidence.” To play it safe, do not leave uncontradicted any conclusion by an opposing expert which runs counter to your factual or legal theory of the case. On the other hand, it is a tactical coup to have your own expert offer the only evidence on an issue.

The rule on uncontradicted expert testimony is an application of the rule that expert testimony is not binding on the jury. State and Defendant in *Castillo v State*, 79 S.W.3d 817 (TX Ap Dallas 2002), called experts on whether a comic book was obscene or not. Appellant argued the jury ought to have agree with his experts, but at page 825 the Court says: “The fact that the two defense experts did not find the material to be obscene would not prevent the jury from deciding it (1) lacked serious literary, artistic, scientific, or political value or (2) would be offensive to the average member of the community.” Indeed, a jury has the right to be more expert than the expert. Thus *United States v Currier*, 454 F.2d 835 (1 Cir 1972), states at page 837: "Despite the erasure, the writing was visible to the naked eye and clear in the government’s infrared photograph. The erased handwriting strongly resembled defendant’s writing of the same words and figures on her settlement sheet of July 18. Although the government expert could not testify with certainty that the erased words were written by the defendant, there was sufficient evidence for the jury to believe they were."

G. BOLSTERING.

Arzaga v State, 86 S.W.3d 767 (TX Ap El Paso), at page 776 defines bolstering: "Bolstering occurs when evidence is admitted for the sole purpose of convincing the fact finder that a particular witness or source of evidence is worthy of credit, without substantively contributing to make the existence of a fact that is of consequence to the determination of the action more or less probable than it would be without the evidence. *Cohn v. State.* 849 S.W.2d 817, 819-20 (Tex.Crim.App. 1993). Accordingly, if the evidence makes any substantive contribution, even if it only incrementally tends to further establish a fact of consequence, it is not bolstering. *Turro,* 950 S.W.2d at 400, *citing Cohn*, 849 S.W.2d at 819-20." In *Arzaga* a police officer, on basis of 25 responses in domestic violence cases, testified that he believed the victim and witness were telling the truth when he interviewed them. However, the error of admitting this opinion was harmless.

In *Woods v State*, 13 S.W.3d 100 (TX Ap Texarkana 2000), three police officers and a parole officer were asked to review a surveillance video tape of the burglary so as to identify defendant whom they had not known previously. This was ruled as bolstering the evidence from two witnesses who knew him previously and could identify him from such personal knowledge. The authors submit that much testimony dressed up as "expert" is essentially bolstering, as in *Viterbo et ux. v Dow Chemical Co.*, 646 F.Supp. 1420, which states at page 424: "Indeed, Dr. Johnson's testimony is no more than Viterbo's testimony dressed up and sanctified as the opinion of an expert." Thus one author has in his files transcripts of testimony from the same handwriting examiner in more than one Federal criminal case that the defendant possibly wrote the questioned documents which possibly are forgeries. He is not the only expert who is expert at making a good living with bad science but excellent cleverness. Hopefully this paper will arm you so that your clients are not victimized by such facile expert opinion of any type supported only by impressive courtroom showmanship, obfuscation of facts and slick answers.

It is not bolstering if the expert evidence gives needed support to other evidence. An example is *Muhammad v State*, 46 S.W.3d 493 (Ap El Paso TX 2001), where the State argued for maximum sentence on basis Defendant was "calm and unrepentant after the shooting" of his former lover. At page 502 the Court of Appeals explained its reversal and remand for new penalty hearing: "Without expert testimony to corroborate his own narrative of events, the credibility of Muhammad's defense was severely diminished."

A word of warning. Since peer review has been touted so much, an expert witness may bolster his opinion by testifying that his report and opinion were peer reviewed by supervisors or colleagues and all found his work and opinion to be impeccable. He then returns the favor in their cases, providing powerful motivation for everyone to be nice to everyone else. Thus, opinion testimony is bolstered by one or more nontestifying experts who are not subject to cross-examination or even discovery.

H. CONCLUSORY OPINIONS.

Expert opinions which fail to meet requirements for reliability are merely conclusory. Courts at times use the word "conclusory" in rejecting such evidence. Among several instances mentioned in this paper is *Huckaby v A. G. Perry & Son, Inc.*, 20 S.W.3d 194 (TX Ap Texarkana 2000). There was question at trial whether the trial court could properly rule that evidence of previous accidents at the same intersection were admissible. At page 202, the admission of it is said to have been error: "Conclusory statements by the Trooper Shipley will not suffice to meet this burden. Opinions that are stated in conclusory terms by [expert] witnesses do not give the court an opportunity to evaluate whether the prior accidents were similar in causation to the extent that they should be considered

relevant in the case on trial." The witness must provide the basis for the conclusion, which the Trooper did not.

Similarly, it is stated in *Clement v City of Plano*, 26 S.W.3d 544 (Ct Ap TX Dallas 2000), at page 551: "Conclusory statements by an expert are insufficient to support a summary judgment." In this case the expert's affidavit failed to state relevant facts and address the elements required to show an officer of the law acted in good faith; the affidavit merely asserted that he had.

In *Mescalero Energy, Inc., v Underwriters Indemnity General Agency, Inc., et al.*, 56 S.W.3d 313 (Ct. Ap Houston TX 2001), summary judgment affidavit of Appellant's expert was not conclusory, which Texas cases say is not sufficient in summary judgement questions. At pages 324-5 these reasons are given:

- Expert cited data, documents and reports on which opinion was based;
- He provided his reasoning process;
- He set forth his expert qualifications; and
- Appellees neither deposed the expert nor raised a *Daubert* challenge so question of reliability was not properly before the court.

I. NEGLIGENCE AND STANDARDS OF CARE.

Several cases discussed address the requirement for evidence from an expert in the same school of practice as defendant regarding standards of care in medical malpractice cases. Others accept such testimony from one in a different field of practice. The seeming conflict can be resolved with reference to *McIntyre v Smith*, 24 S.W.3d 911 (Ct Ap TX Texarkana 2000). Though defendant was a nephrologist, doctors in other fields could establish the applicable standard of care since it was a matter of inserting a catheter, a matter common to the several medical specialties of the witnesses.

Although we have not found a universal rule stated in any case, for other kinds of work it would seem safe to do the same as required in medical malpractice cases. This is intimated in *Foust v Estate of Roland Walters, et al.*, 21 S.W.3d 495 (TX Ap San Antonio 2000). At page 505 it is ruled: "A negligence claim against an aerial applicator must be established with expert testimony." Why win at trial only to risk being overturned on appeal? To be safe, use expert testimony from one in the same field as defendant to prove the specifics of the standard of care violated.

A good example of a very specific standard is that given in *Sloan v Molandes, et al.*, 32 S.W.3d 745 (Ct Ap Beaumont TX 2000). At page 748 physician's expert testimony was that Defendant doctor violated the standard of care by continuing steroid therapy several months without checking patient's triglyceride levels. The high levels ultimately gave her pancreatitis and worsened her diabetes. The high dosage, extended therapy and failure to check levels were a triple violation of established standards against a known medical risk.

The Court of Appeals said that no expert evidence was needed on standard of care in the physical-therapist malpractice case of *Rehabilitative Care Systems of America v Davis*, 43 S.W.3d 649 (Ct Ap Texarkana TX 2001). At page 657 it is explained why none was required: "The Amarillo Court of Appeals has ruled that a physical therapist malpractice action is treated exactly like a traditional physician medical malpractice action [Citation omitted]." However, the general rule requiring such expert testimony has exceptions. "When the underlying negligence involves the standard of non-medical, administrative, ministerial, or routine care at a hospital, expert testimony is not needed because the jury is competent from its own experience to determine and apply such a reasonable care standard." Here, the question was should staff have been present or near by to assist when the incident occurred, which is not an issue of professional skill. But the Supreme Court, at 73 S.W.3d 233, said such cases are no different than any other medical malpractice suit. Expert

testimony is required to establish the standard of care purportedly violated.

Only Plaintiff, as having the burden of proof, is required to establish the applicable standard. *Cruz v Paso Del Norte Health Foundation*, 44 S.W.3d 622 (Ct Ap TX 2001), says bluntly at page 632: "Failure of a defendant's expert to enunciate the standard of care does not require exclusion of the testimony." It might, however, go to the weight.

J. WHERE ERROR IN ADMITTING EXPERT IS HARMLESS.

It seems that if courts consider the evidence so overwhelming that if an error in admitting evidence made no difference, the error is tolerated. For example, in *Franco v State*, 25 S.W.3d 26 (Ct Ap TX El Paso 2000), the witness on blood splatter was unqualified, his conclusions went well beyond permissible limits, the defendant's rights were substantially prejudiced, and the state admitted the error of its ways in presenting it. Since the jury could have found guilt without the erroneous testimony, the error was held harmless; and, since the state acknowledged the error, holding it harmless would not encourage the same future error. The moral is to be very sure you demonstrate substantial and unredeemable harm when appealing an error in expert evidence, since speculation by appellate judges as to what a jury would have found in any case seems to be the favorite excuse for discounting even the most egregious error, particularly in criminal cases. *Franco* is not a unique ruling in this regard.

K. REASONABLE RELIANCE.

At any point where an expert witness bases an opinion in any way upon data, knowledge or theory obtained from any source, it is subject to rules for reasonable reliance: Do experts in that particular discipline ordinarily and reasonably rely on such sources? The witness is not supposed to obtain the opinion itself from a source other than his own expertise. The case *In the Interest of CDK, JLK, and BJK, Minor Children*, 64 S.W.3d 679 (Ct Ap Amarillo TX 2002), is instructive. A test given to the father was sent to Atlanta, GA, whence the interpretative results were returned. However, no background information about the test, methods used to interpret it or its inventor, who offered the interpretation, was given to the trial court. The expert witness could not say with certainty that results were the father's, only that test numbers matched. At page 684: "[B]y admitting the alleged expert evidence without that evidence [of its reliability], the trial court abused its discretion." One might list all sources of whatever nature opposing experts used and ask of each: Does this source meet the test for reasonable reliance?

In *Nissan Motor Co., Ltd., v Armstrong*, 145 S.W.3d 131 (TX 2004), concluding from hearsay records of prior accidents that the sheer mass of them proved the complaining drivers were right, that the accidents from rapid acceleration were not their fault, was unreasonable reliance as well as poor logic. Using a massive amount of unsubstantiated hearsay does not cure the inadmissibility of a little unsubstantiated hearsay.

L. EXPERT REPORTS: STANDARDS.

Hagedorn v Tisdale, 73 S.W.3d 341 (TX Ap Amarillo 2002), discusses the failure of plaintiff's expert to issue a timely report that met the requirements of the relevant statute. The various points the Court of Appeals made are summarized in the discussion of *Hagedorn* in Section XI. We submit that a written report along this order, or one even more substantial and complete, ought to be legally required of all experts in all cases. The Expert Witness Institute in London publishes a guide for requirements of all expert reports in England, which we believe ought to be required here (*EWI 2002*). If a forensic expert is a scientific or technical professional, and every expert is presumably

one or the other, less than that quality and content for a report ought to be as embarrassing to the expert as it is uninformative to the reader. Unfortunately, particularly government document experts seem to aim at being as uninformative as possible, settling for the most naked of conclusory statements that the accused did the deed. Amazingly, they often use highly complex forms for "reports" for which a three by five card or a Post-it note would be more than sufficient, or just the back of their calling card would at times be an excessive space.

M. SUMMARY REMARKS.

A summary of the practical, though awesome, responsibility of inquiring into the admissibility of expert evidence is given in *Kumho Tire Co., Ltd., et al., v Carmichael, et al.* The concurring opinion states: "I think it worth adding that it is not discretion to perform the function inadequately. Rather, it is discretion to choose among *reasonable* means of excluding expertise that is *fausse* and science that is junky. Though, as the Court makes clear today, the *Daubert* factors are not holy writ, in a particular case the failure to apply one or another of them may be unreasonable, and hence an abuse of discretion." [Emphases in original.]

SECTION IX. ILLUSTRATIVE ANSWERS.

This Section provides a comprehensive method of questioning an expert in a *du Pont/Daubert* hearing. It is based on the discussions in previous Sections and has the following Sub-sections:

A. Preparation with your Expert.

B. Questions with Illustrative Answers from Handwriting Expertise.

C. Mounting a Counter-attack.

Relevancy is taken for granted because it is a question of law. The focus here is solely on questions of fact relating to reliability. In like manner, factors outweighing the probative force of an expert opinion are questions of law. They are only considered in passing as they relate to a factor of reliability. The interchange will at times be telescoped, particularly where a publication is cited. Usually the expert would have to refer to notes, but this hypothetical expert has perfect recall of bibliographic data and verbatim quotations, all in the interest of expediting matters.

A. PREPARATION WITH YOUR EXPERT.

1. PRELIMINARIES.

When an *in limine* challenge is mounted against your expert evidence, make opposing counsel state precisely:

(a) the exact elements of your expert evidence the challenge is directed against, such as the expert's general qualifications, the expert's qualifications specific to the fact in issue, validity of the scientific theory, reliability of a specific text relied on or procedure employed, and so on;

(b) the particular *Kelly* or *du Pont/Daubert* factor(s) regarding which the challenge is made; and

(c) the authorities, legal or scientific, upon which the challenge is based.

Without this information the challenge is too amorphous to constitute a fair one, much less one which can be scientifically met. Still, whatever information given you, present your own expert to the court with the most thorough and in-depth evidence of relevance and reliability that you can, but emphasize that part of your presentation which directly meets opposing counsel's challenge.

2. WHAT YOUR EXPERT SHOULD PROVIDE.

Provide your expert with a list of everything requiring disclosure. Once an expert has gone through an *in limine* hearing, such things should be forthcoming spontaneously, without any prodding. Meet with the expert and ask every applicable question as given here and in other guides you employ. Every factor, which courts of law have given as a way to test reliability of expert opinions, is a factor which the fully experienced expert should have already routinely considered. This consideration should result in competently fulfilling the requirements of each factor or providing a counterbalancing factor where one is inapplicable or not satisfied in the instant case.

To state it another way: *Kelly*, *du Pont*, *Daubert* and their progeny make technical requirements which experts should routinely require of themselves out of professional competence and personal integrity. Thus, when a competent expert provides an opinion, such expert is for the most part prepared for an *in limine* hearing on the reliability of the opinion. This statement does not mean that, if new law is written, the expert ought to have had foreknowledge of it, only that whatever touches on technical and scientific reliability would be within the ordinary standard of care for a forensic expert, whether the expert presents oneself as being either scientific or technical. You should only have to require plugging incidental holes and strengthening primary points of attack.

Once you explain to the expert the format in which you require expert exhibits to be, you should rest assured they will be forthcoming in exactly that format, unless your expert brings to your attention some practical difficulty or suggests something which may be a better alternative.

B. QUESTIONS WITH ILLUSTRATIVE ANSWERS FROM HANDWRITING EXPERTISE.

Assume that you represent Plaintiff who attempts to collect on a handwritten promissory note. The following illustrative questions and answers address the hypothetical situation wherein your expert formed an opinion that Defendant did indeed write and sign the note. Thus we have two expert issues. The first regards theory: Is there any scientific bases to say that the maker of a signature can be reliably identified? The second regards application of theory: Is the expert opinion in this case, i.e., Defendant wrote and signed the note, a reliable application of theory? There are other issues which might be attacked, but for simplicity's sake we limit ourselves to these two alone. The first is the major challenge from the anti-expert experts, so the illustrations are also a definitive reply to their various false assertions.

1. QUESTIONS TO BE REPEATED.

For each topic under each area to be inquired about, certain questions are to be repeated. They are fully illustrated only for Sub-item (a) under Item 2 below. You will review them all with your expert ahead of time so that you will not ask an inapplicable question or one which your expert could not answer for some reason. Consider all questions given for the factor of *Knowledge* as those which are to be repeated under other factors as applicable.

2. THE FIVE FACTORS QUALIFYING THE EXPERT.

(a) *Knowledge*.

Assure that the expert's knowledge and its requisite specific fit to the fact in issue are demonstrated by having the expert expound on the science of handwriting identification as it applies to the case. Pointing out all the classes and so on which the expert took does not prove any knowledge, only the opportunity to have acquired knowledge. You demonstrate your expert's knowledge by having the expert expound for the judge or by presenting writings by the expert in which the requisite knowledge is set forth. So the questions begin with eliciting a statement of the factual issue submitted to the expert and then demonstrating knowledge by educating the judge on the science involved. Besides proving the requisite knowledge, you will also immunize the judge against any pseudo-scientific assertions and pretensions by opposing experts. These educational explanations will be repeated for the jury's benefit for the same two reasons.

Q: What were you asked to determine in this case?

A: To say who made the handwriting on a promissory note, what we call the identification of handwriting.

Q: Are there standard authors in your discipline for the identification of handwriting?

A: Yes.

Q. Please give us the names of some recognized authorities.

A: The four books generally considered the most standard are *Questioned Documents* by Albert S. Osborn (*Osborn 1929*), *Suspect Documents* by Wilson R. Harrison (*Harrison 1981*), *Scientific Examination of Questioned Documents* by Ordway Hilton (*Hilton 1982*), and *Evidential Documents* by James V. P. Conway (*Conway 1959*).

[NOTE: Establishing the authoritative nature of these basic works makes them available for impeachment of the opposing expert on cross-examination. *Ramirez v State*, 815 S.W.2d 636 (Ct Cr Ap TX 1991).]

Q: Is there a standard for making an identification of handwriting?

A: Yes.

Q: What is it?

A: To identify a person as the author of a handwriting one must demonstrate that there are enough significant similarities between the writing in question and genuine writings by the person for a reasonable elimination of the chance identification of another person as the writer. Additionally, one must give a reasonable explanation for any significant difference between the questioned writing and the genuine writings of the person.

[NOTE: Questions should be asked to explain such technical terms as "significant similarities" and "reasonable explanation" and to explain how they are determined.]

Q. Do you have references to support that?

A: Yes.

Q: Give us some.

A: [The expert provides citations to publications, especially the four authorities already mentioned.]

Q: Do experts in your field routinely rely on other disciplines for data on identification of a writer?

A: Yes.

Q: What would some of these disciplines be?

A: Medical and psychological research and reports relating to handwriting, penmanship studies from educational experts, paleography and the graphic arts.

[NOTE: The attorney would inquire about specific knowledge the expert has derived from studies in such disciplines which relates to the fact in issue.]

(b) *Skill*.

Show your expert's skill by eliciting descriptions of how the work is actually done along with explanations of tools and equipment, how they are employed, and for what purposes. Published writings and professional presentations by the witness which expound applicable procedures are excellent ways to document skill.

(c) *Experience*.

Questions specific to experience in the problem at hand should be asked. So for our hypothetical case, ask:

Q. Have you examined handwritten promissory notes before? How often? With what results?

Q. How prevalent is identification of handwriting in your case load?

Q. Have you given depositions regarding promissory notes? How often? Concerning handwriting identification? How often?

Ask the same questions regarding court testimony. Other pertinent queries will be suggested in your consultation with the expert.

(d) *Training*.

Ask for every type of training that the expert had and its application to the specific factual issue.

(e) *Education*.

Make the same inquiry about education as for training. Have the expert explain the requirement in codes of ethics concerning continual self-study. As mentioned previously, many institutionally trained and employed experts learn nothing beyond the institutionally required classes, perhaps supplemented by conferences that the employer pays for. To demonstrate to the court how critical self-study is to the expert's qualification and credibility, draw an analogy to a hypothetical attorney who never learned anything about law outside of law school or the required continuing educational credits. What competent attorney tries a case without some self-study in the applicable law and of the relevant factual evidence, especially expert evidence? Imagine a judge who never engages in self-study. A preposterous imagining. Equally, an expert, who claims expertise but cannot prove relevant

self-study, makes a preposterous claim.

(f) *A Final Word on Thoroughness.*

When should these presentations be curtailed? Only when the bench forces it, and then only with a record made of objection to the force. When opposing counsel has made the trial a tiresome, interminable ordeal for jury and judge, some attorneys feel compelled to speed things up by eliminating some of their prepared case in chief, particularly their expert's qualifications. It is ill advised to do so, since that rewards opposing counsel for being a litigational bore. Such circumstances require all the more that one present a complete, spirited, interesting and thoroughly probative case.

3. RELIABILITY OF THE EXPERT OPINION.

Legal restrictions regarding what is off limits to the expert are assumed to have all been met. Likewise, the probative value of the opinion is considered not to be outweighed by any factor established by Rule 403.

(a) *Objectivity of the Expert's Conclusions.*

Q: When you were asked to examine the promissory note in question, did you know whether we represented Plaintiff or Defendant or whether our client claimed the note was genuine or not?

A: No, I did not.

Q: When did you first find out that Plaintiff was our client and what he claimed?

A: After I had finished my initial examination of the writings and reported my opinion to you that the handwriting signature on the promissory note were genuine.

[NOTE: The best way to assure and later prove total objectivity is to retain your expert with a letter stating the problem but giving no hint what your client's position is.]

Q: How much of your work results in court testimony as in this case?

A: At most, one in [whatever number represents the expert's experience].

Q: How did you obtain the sample writings by Defendant to compare to the promissory note?

A: At first, you gave me a few. I asked for more because [whatever the reason, such as wrong dates, not enough material, not originals, etc.] You then gave me more.

Q: Did you review reports by the handwriting experts retained by Defendant?

A: Yes.

Q: What influence did these reports have on your opinion?

A: I reviewed their observations and concluded that research and authority in questioned documents did not support their conclusion. However, I wrote a revised report because I had to explain the reasonable explanations for their observations being true while Defendant still wrote the promissory note.

Q: We will come to those explanations later on.

(b) *Comprehensiveness of the Opinion: Causality.*

Q: Did you consider any other person as possibly the writer of the note?

A: Yes.

Q: Why did you do that?

A: After I first reported my opinion to you, you told me that Defendant named Plaintiff and two others as possibly having written the note.

Q: What did you do because you were told that?

A: I compared writings by each of those three people with the note in the same way I had compared Defendant's.

Q: What did you conclude?

A: I concluded that taking each of the three in isolation, it could be proved definitely that each did not write the note.

Q: Is it standard practice for handwriting experts to examine several people's writings that way or just that of the writer or writers the client asks them to examine?

A: Most seem to examine only those writers the client asks, but I like to follow the practice recommended in anonymous note cases and examine every person who is either accused by someone or who could reasonably have done it, if that is practical in the situation.

[NOTE: The logical integrity of the expert's conclusion is then set forth.]

4. FACTUAL BASES IN THE CASE.

This is a matter of systematically presenting the materials the expert examined, the documentation the expert read, such as depositions and reports by other experts, and other admissible evidence the expert referred to or relied on. Set them forth in the same systematic way as with other factual bases.

5. FACTUAL BASES OUTSIDE THE CASE.

As explained previously, we mean by this those things upon which the expert reasonably and legitimately relied but which are not admissible in evidence except by some provision such as allowing extraneous documents being admitted as exemplar handwritings.

(a) *Control Materials, Such as Handwriting Exemplars.*

There are technical and legal requirements for admission of handwriting exemplars to which an expert compared the disputed or denied writing in order to come to the expert opinion as to authorship. We will not set forth actual questions but only state the major points which have to be covered.

Legal requirements establish the genuineness of the exemplars; that is, they were actually written by the person whom the proponent claims wrote them. This must be proven to the satisfaction of the judge before they are admitted for use and is generally done in one of the following ways:

- The purported writer admits to having written it;
- A witness to the making of the writing so testifies;
- A witness familiar with the purported writer's handwriting authenticates the writing;
- A duly certified copy of a public record is presented to the court;
- The writing comes under the provisions for admission of ancient writings; or
- The reputed writer acquiesced in the writing, or recognized or adopted it as his own, or acted on the writing as if it were his own.

Further, there is no rule barring use of the exemplar, such as:

- Not in violation of the *post litem motam* rule;
- Not an unusually prejudicial document; or
- The expert who will use it as comparison material is not the one offered to authenticate it as genuine. An expert may not base an opinion regarding genuineness of the disputed on his own former opinion about the genuineness of the exemplar, as that is equivalent to piling inferences on inferences. It would also invite fraudulent evidence from an unscrupulous expert.

Assuming an exemplar is genuine, the major technical requirements are:

- Not from such a distant time period from the disputed or denied writing that the purported author may have significantly altered the style of writing;
- Not of such different writing materials or instruments that there is a significant difference introduced;

• Not made in an unusual circumstance significantly different from that of the disputed or denied writing;

• Of sufficient quantity to demonstrate the purported writer's range of variation in style; and

• In original writing or reasonably good copy.

Other technical considerations may apply in special situations. To the degree an ideal requirement is not met, the expert must either qualify the opinion or demonstrate how the lack is adequately made up for.

The above would hopefully be demonstrated as having been accounted for by your expert but not all of it taken into consideration by the opposing expert.

(b) *The Professional Literature.*

One of the authors routinely supplies the attorney/client with a bibliography of professional literature once any hint of challenge looms. In our hypothetical case, introduction of such material can be done thus:

Q: Among the reasons for which it was said Defendant did not write the note is that some letters do not match the way they are formed in his exemplars. Is there a reasonable answer to that?

A: Yes.

Q: What is it?

A: The letters referred to in the note are at the beginning of words, and they are compared to the same letters inside or at the ends of words. Research shows that writers tend to change the forms of letters more often if they begin words. One such study is by Alan M. Wing, titled "The consistency of cursive letter formation as a function of position in the word." It was published in *Acta Psychologica*, volume 54, pages 197-204, 1983. Defendant's exemplars have other letters which also differ at the start of words as compared to the middle or ends of words. I have prepared a chart to demonstrate all of these things.

[NOTE: Since only the reliability of the opinion need be proved at the *in limine* hearing, the comparison itself need not be made.]

(c) *The Expert's Interview of Persons.*

The handwriting expert would rarely interview people, but she will occasionally direct purported writers in giving exemplar writings. Particularly prosecution experts or investigators will take sample writings from defendants. If certain norms are violated, the resulting exemplars are invalid for comparison purposes. Prosecution experts should be thoroughly examined on the norms, such as:

• The same writing instrument as in the questioned writing should be used;

• The same kind of paper or form or format should be used;

• Circumstances should be reproduced as much as practical, such as standing at a counter if the questioned writing was made standing at a counter;

• Each sample should be identified by an exhibit number and signatures or initials of the expert taking the exemplars and of the defendant giving them;

• The chain of custody of each exemplar must be shown from the time of its making to its presentation in court; and

• Instructions given the defendant for each exemplar must be recorded and presented in court along with the exemplar.

This last point is very important, since there have been cases where a defendant was asked by the expert taking exemplars to disguise them, while a different expert testified at trial that the exemplars were wilfully disguised and thus of no use for comparison purposes. Courts have ruled that wilful disguise of exemplars shows consciousness of guilt, so a defendant in this situation suffers an injustice (*Matley 2000*).

6. THEORETICAL BASES OF THE OPINION.

(a) *Subject to Judicial Notice.*

In Section VI, Sub-section A, the case of *Greenberg Gallery, Inc., v Bauman*, 817 F.Supp. 167 (D.C. DC 1993); affirmed without opinion, 36 F.3d 127 (DC Cir 1994), was cited in this regard. A court might be asked to take judicial notice that throughout history courts of law have explicitly recognized handwriting identification expertise as being scientific (*Matley 1997*).

In *Webster v State*, 26 S.W.3d 717 (Ct Ap TX Waco 2000), the Court of Appeals took judicial notice of the entirety of relevant publications by National Highway Traffic Safety Administration regarding all aspects of HGN, even though the parties had not provided complete copies on appeal.

(b) *Laws of Physics, etc.*

Contrary to the contentions which the anti-expert experts create and foster, presumably with a sincere belief in their self-manufactured myths, handwriting expertise is based on physiological laws of anatomy, on the nature of neuro-muscular motor performance and on the physics of writing materials. For example, knowledge of laws of physics governing the nature and performance of ballpoint pens is helpful in examining handwritings made with such pens (*Hung 1995*). Here we illustrate our hypothetical case with reference to medical research on handwriting.

Q: In this case there have been reports of expert opinions that the handwriting on the note in question contains indicia of forgery. Did you address this contention?

A: Yes.

Q: Did you agree or disagree with this contention?

A: I disagreed, since the purported indicia of forgery are the effects of Defendant's acknowledged writer's cramp.

Q: Do you have a reliable scientific basis for your disagreement?

A: Yes.

Q: What is that reliable scientific basis?

A: Researchers in medical science have studied writer's cramp and reported their findings in the medical literature. I have drawn on their findings and conclusions to demonstrate that the so-called indicia of forgery are qualitatively different from what Albert S. Osborn and other authorities in questioned documents have taught and illustrated the indicia to be. A sample item in my bibliography of medical research reports, which I have previously supplied to you and opposing counsel, is by T. Odergren, *et al.*, in the journal titled *Brain*, 1996, volume 119, pages 569-583. The paper is titled: "Impaired sensory-motor integration during grasping in writer's cramp."

(c) *Common Knowledge.*

The Common Law provided for the finder of fact to examine the disputed or denied writing, compare it with the purported author's exemplars, which are properly in evidence for other purposes, and determine authenticity or falsity during deliberations after both sides have submitted their cases. This provision is often set forth in statutes also, so the law assumes that the knowledge required to identify handwriting is common to jurors, which is the same as saying to the ordinary lay person. Yet statutes establishing handwriting expert evidence assume that only a qualified expert can know how to do the same thing upon retainer and from the witness stand. However, it is best to have your expert delineate every basis of the expert opinion, establishing reliable scientific or technical grounds for each. Remember, you will be arguing that experts on the other side do not know what they are doing, that the problem in this case requires rare expertise, esoteric knowledge and special acumen which only your expert possesses.

(d) *Authorities in the Particular Discipline.*

Q: You mentioned that authorities in the field of questioned documents have taught and illustrated

the indicia of falsity. Did you prepare a bibliography of such authorities and supply them to counsel for both sides in this case?

A: Yes.

Q: Could you provide what you consider one of the more compelling of such authorities and explain why you consider it so?

A: Wilson R. Harrison, in his book *Suspect Documents: Their Scientific Examination*, in the segment titled "Detection of Simulated Forgeries," beginning at page 399, describes the usual qualities of an imitation of another person's handwriting (*Harrison* 1981). These are derived from research in having subjects attempt imitating the handwriting of others and from the cumulative experience of experts over the years. The two sources confirm each other. I prepared an enlarged chart to demonstrate that the so-called indicia of forgery in the note in question are really what the medical research identifies as qualities of writer's cramp and not what forensic handwriting research identifies as indicia of forgery.

(e) *Authorities from Other Disciplines.*

This was illustrated under (a) above, *Law of Physics, etc.*

(f) *Expert Must be Conversant with These Sources.*

Force the opposing expert to validate every technical or scientific basis of his opinion with citation to a publication which you can retrieve and study. You might find that many handwriting experts have never done serious scholarly study once they were out of their little two-week course by the Secret Service, or the so-called apprenticeship they served many years ago. Additionally, when they claim such courses qualify them, require them to cite precise segments which they can substantiate with course materials. Require that such citations be tied directly to their opinions in the instant case.

(g) *The Expert Must Recognize Limitations as to What Can be Done.*

Assume that one of the opposing experts said that the note was forged and that your client, Plaintiff, did the deed. The questioning on direct will enhance your expert and set the stage to impeach the opposing expert's opinion.

Q: Does the field of questioned documents have established guidelines for what are the kinds of writing which cannot be identified?

A: Yes.

Q: What are some of those guidelines?

A: If one does not have sufficient writing in the questioned document to determine its uniquely identifying characteristics, one cannot identify the writer. The same for the suspect, if one does not have the proper quantity and quality of exemplars, the authorities tell us we either cannot identify the writer or must make a qualified opinion. Also, it is very difficult to identify the author of an imitation writing.

Q: Why is it very difficult to identify the author of an imitation writing?

A: The imitator is trying his best to write as much like the victim and as little as himself as he possibly can. He also is usually writing much slower than he normally would. All this tends to eliminate or greatly reduce the imitator's own identifying characteristics.

Q: Are there any published papers on this problem?

A: Yes.

Q: Please provide us with a paper by a recognized authority on this problem.

A: In another bibliography I supplied to both counsel there is listed Ordway Hilton's paper, "Can the forger be identified from his handwriting?" It was published in *Journal of Criminal Law, Criminology and Police Science*, Nov.-Dec. 1952, volume 43, pages 547-55. He explains the difficulties, how they have to be met, and when we ought not try to identify the maker of an imitation

writing.

(h) *Non-litigation Use of the Expertise.*

Q: In the legal newspaper, *San Francisco Daily Journal*, for Nov. 2, 1999, David Faigman, a professor of the course "Law and Science" at Hastings College of The Law, is quoted to this effect: "Some fields, such as handwriting analysis, haven't bothered to truly validate their theories because courts have been the only 'customers' for their expertise, he says." (*Faigman 1999*) We have already reviewed citations to scientific literature validating theories you have relied on in this case. What is your view on courts of law being the only 'customers' for the expertise of handwriting identification?

A: That is a totally incorrect view of reality.

Q: Please explain what you mean by that.

A: First, most of my work, and most of the work of most handwriting experts, never goes to court and some would never go to court in any event. For example, a parent wants to know if a child wrote a naughty note to a neighbor. Second, there are entire fields which use handwriting identification, yet they have nothing to do with courts of law.

Q: Could you name some of these fields?

A: Yes. Using the same skills that we do, paleographers identify styles of writing in historical documents, even to saying which Dead Sea Scrolls were written by the same scribe (*Leventon 1994*), which cuneiform clay tablets are from which time period in ancient history (*Bryce 1998*), or which voters' ostraca in ancient Athens were written by the same person (*Man 2000*). Manuscript dealers routinely use the skill to authenticate collectible signatures and manuscripts. Art dealers and art museum experts use it to verify works of art (*Spencer 2004*). Should I name more and cite the literature of these various disciplines?

Q: No, that will not be necessary unless counsel for Defendant or the Court wishes to take the hour needed to do all that.

7. METHODOLOGICAL BASES.

We will only illustrate how some of the more challenging considerations can be handled.

(a) *Where Was it Published?*

Q: Does the field of questioned documents have a professional literature?

A: Yes, a very extensive one, extensive both in mass of materials and spanning back to the 1800s.

Q: In their paper, "Exorcism of Ignorance," Risinger, *et al.*, said that forensic document examination was not represented in standard scholarly literature and available in academic research libraries. Do you agree with that?

A: Absolutely not. It is well represented in academic libraries, including any law library of any significant size.

Q: Where might one find access to this material?

A: There are several guides available, such as Matley's *QDE Index*, *Questioned Document Bibliography* by the Royal Canadian Mounted Police, *AskSam Database for Forensic Document Examination* compiled under auspices of the American Board of Forensic Document Examiners, *20 American Jurisprudence, Proof of Facts*, pages 335-373, "Questioned Documents Bibliography," and several other papers in the Am Jur series. Additionally, standard indices will cite questioned document literature, such as *Current Law Index,* the Wilson computerized on-line legal index, *Science Citation Index* and *Index Medicus*.

Q: You have cited works in your field which describe the standard step-by-step procedure

experts use in examining and comparing handwritings. Has this procedure been published in literature from other sources?

A: Yes. Reported court cases have described it with approval.

Q: Please give us a couple of examples.

A: In *United States v Velasquez*, 33 Virgin Islands Reporter 265, at page 289, footnote 3, the method is described very succinctly. The case *In re Gordon's Will*, 26 Atlantic Reporter, First Series, 268 (1892), affirmed 30 Atlantic 19, at page 277 gives what could be an outline for a beginning course in handwriting identification. The factors set forth are things today's expert must still consider. It ends by stating that an expert's credibility will depend on demonstrating each link in the chain of evidence leading to the expert opinion as to who wrote the writing in question. Specific aspects of the expertise have been set forth by other courts, so that one could write a fairly comprehensive manual based on reported court cases.

Q: Does the field of handwriting expertise have peer reviewed journals?

A: Yes.

Q: Can you identify some of those in English for us?

A: The following organizations have peer-reviewed journals: National Association of Document Examiners, Association of Forensic Document Examiners, Independent Association of Questioned Document Examiners, and American Society of Questioned Document Examiners, plus the independent publication of *International Journal of Forensic Document Examiners*, 1995-1999.

Q: Has handwriting expertise been accepted by other fields of the forensic sciences, or is it an isolated discipline?

A: Other forensic disciplines have accepted it and routinely include it in their organizations and routinely publish its authors in their professional journals, some of which are peer reviewed.

Q: Can you give us some idea of the extent of this acceptance?

A: The following organizations have sections for document examiners: American Academy of Forensic Sciences, Canadian Society of Forensic Sciences, International Association for Identification, and, in Great Britain, Forensic Science Society. These groups regularly publish papers by document examiners in their recognized, peer-reviewed journals: *Journal of Forensic Sciences, Canadian Society of Forensic Sciences Journal, Journal of Forensic Identification*, and *Science and Justice*. Additionally, independently published journals have material by document examiners, such as *Forensic Science International* and *International Criminal Police Review*, the highly regarded INTERPOL journal, which is no longer published.

(b) *Where was it Tested for Reliability?*

Q: Critics say that there has been no rate-of-error testing for handwriting expertise. Is that true?

A: Not entirely.

Q: Why do you say that?

A: Informal testing goes on in training courses, otherwise students do not pass. Collaborative Testing Services, Inc., runs an annual competency test. It is just that our critics think that their own way of doing things is the only right way. The expertise has long had something far more useful for courts and attorneys cross-examining us, while in researching reliability in other areas authors have produced rate of error for competence in handwriting identification.

Q: First, give us an example of rate-of-error data in handwriting identification when investigating another area of the expertise.

A: In researching reliability of photocopies for handwriting opinions, Dawson and Lindblom (*Dawson 1998*) found better than 94% accuracy in handwriting opinions given by 100 examiners in four countries.

Q: Second, what is the something more useful?

A: Over the years, authors have repeatedly identified and listed the ways in which handwriting experts can make mistakes. You can use these lists to cross-examine and expose any incorrect, incomplete or incompetent expert opinion in handwriting.

Q: Can you give us a sample citation to such a list?

A: Yes. In his book *Questioned Documents*, second edition, on page 388, Albert S. Osborn gives 12 major sources of errors (*Osborn 1929*). Each can be fleshed out from other works on errors in expert opinions on handwriting. I have journal citations to more than a dozen papers specifically on errors in handwriting identification.

(c) *Inquiry into the Method.*

A major flaw in handwriting expertise is failure to have complete contemporary notes on the work performed and activities engaged in. This may be due to former rules of discovery which were not as specific and thorough as Federal rules are now, and which apparently are still that way in some states. It is suggested that you grill the opposing expert on his record keeping, including exact data used for billing. More than one transcript of court testimony show the expert insisting he has no idea how much he has charged so far, what he will charge, or how much he will make on the case. Nor does he have anything he can share with the cross-examiner and the court in this regard. Since his opinion assumes he has perfect memory for every detail he observed in the documents from the first moment he saw them, test his long-term memory for such precise details by having him describe for the jury the pertinent writings and their unique features without looking at them.

Make the expert describe exactly every step in his method, each tool he used, the time required for each step, all observations made at each step, the reliability testing done if any, and all texts relied on for theory and interpretation. You will do well to check on such things before retaining an expert of your own. With today's challenges to expert testimony, the old way of "flying by the seat of one's pants" may mean your evidence, when piloted by such an expert, will crash.

(d) *Probability in Handwriting Opinions*.

The best authorities agree that numerical statements are improper for expressing probability in expert handwriting opinions. The standard terms are officially set forth in two sources (*McAlexander 1991*) (*ASTM 14.02 annual*). The witness would be asked to state the standard terminology and the authoritative references. Two supporting arguments for legal acceptance are, first, the terms parallel legal terms for the standard of proof from preponderance of evidence through beyond a reasonable doubt, and, second, such cases as *Jackson v State*, 50 S.W.3d 579 (Ct Ap Ft. Worth TX 2001), where expert's testimony regarding cocaine level in Defendant's blood in terms of high, medium or low was acceptable, no numerical expression being required, as long as standards in applicable statutes were met.

Beware the term "consistent with." It merely means a possibility, as used in *Strong v State*, 805 S.W.2d 478 (TX Ap Tyler 1990), at page 486: "An expert witness testified that the entries made in Exhibit 70 were written by Judy Lindley. However, he stated that although the handwriting on the tabs was consistent with Judy Lindsey's handwriting, he was unable to make a definite determination of whose handwriting was on the tabs." An opposing attorney will ask your expert if something is consistent with his theory as to causality. On redirect ask a question to clarify what "consistent with" means, otherwise it will be argued that it means "definite" and that your expert agreed you were wrong. The suggested syllogism of such a question is: "The questioned writing is consistent with defendant's other writings. Therefore defendant made the questioned writing." To illustrate the logical fallacy, we need only substitute another type of consistency for that between questioned writing and defendant. "American Common Law is consistent with that of a Commonwealth country

that still follows English law. Therefore, America is a Commonwealth country."

C. MOUNTING A COUNTER-ATTACK.

When the opposing side challenges your expert, the first consideration is: Can I turn the tables on them? This can be done in several ways, three of which are illustrated. Never be merely reactive and defensive to the challenge. Be proactive; go on the offensive. Illustration will be made with a common, rather inane challenge that the authors often face.

(a) *Is Their Expert Qualified to Criticize Yours?*

When one expert criticizes another personally as being unqualified, the attack is of two types. The other expert either belongs to the wrong organization or has knowledge of a topic disapproved of by the critic and the critic's associates. Based on that attack, the opposing attorney will make an *in limine* motion to disqualify your expert. Mount a counter *in limine* motion to disqualify the opposing expert from saying anything about the subject of the challenge. To show how, this segment will consider the common challenge that, if a handwriting expert knows graphology (handwriting analysis), one cannot possibly know handwriting identification, much less be skilled at it. To suit your needs, merely substitute any relevant expertise and any irrelevant quality for the illustrative ones. At the hearing query the opposing expert thus:

Q: Mr. Expert, is expertise in Graphology included within the expertise of questioned documents?

If he answers, "Yes," you have just won, since your expert's expertise in Graphology is incorporated into questioned documents by the opposing expert. However, there is scant likelihood of that answer, so the reply will be in this vein:

A: No, they are entirely separate and, in fact, Graphology is a pseudo-science and graphologists must be excluded from questioned documents.

Q: Do you have any expertise in Graphology?

If he answers, "No," move that he be disqualified from giving any testimony regarding it, since expert testimony in any subject requires expertise in that subject. However, in all likelihood he will reply:

A: Yes, enough to explain how it should be excluded from questioned documents.

Q: Mr. Expert, to testify as an expert in a subject, you have to demonstrate knowledge, skill, experience, education or training in that subject. Let us take each of those five possibilities and see which one or ones you claim.

[NOTE: We will say he only claims knowledge enough to give an expert testimony on the topic. If he claims any of the other four, he is, or at least at one time was, a graphologist. That puts him in the same boat as your expert, and thus opposing counsel cannot sink your expert without sinking his own.]

Q: First, give us an idea of the scope of your knowledge of Graphology. Define "Graphology" for us.

A: Graphology is the divining of personality from a person's handwriting.

Q: Name one author in the field of Graphology who uses the word "divining" or "divination" or any form of those words to define "Graphology."

A: [Of course, he cannot, since none ever do.]

Q: Which authors in Graphology did you read?

A: I read Joe Smith's book, *Know All About Everyone's Sex Life Through Handwriting*. [This is a fictitious title for illustrative purposes.]

Q: Any others?

A: That's about all one needs to read on that subject to know how bad it is.

Q: [Counsel then asks one by one whether he has read the serious authors in the field.] Have you read Klara Roman, *Handwriting; a key to personality* (*Roman 1952*)? Robert Saudek, *Psychology of Handwriting* (*Saudek 1926*)? Alfred Mendel, *Personality in Handwriting* (*Mendel 1947*)? [Covering a list of about two dozen major titles.]

A: No. No. No....

[NOTE: If he says he read one, inquire about what he learned in order to demonstrate he either did not read it or read it without adequate comprehension. Each text you ask about will be ready at hand for impeachment of his understanding of it. There is no serious danger of the witness being even moderately well informed.]

Q: Since you did not read these books or attend classes in Graphology, where did you obtain your knowledge about Graphology?

A: When we had our apprenticeship training and when we went to conferences, we were told all about Graphology.

Q: And where did those telling you "all about Graphology" get their knowledge?

A: I don't know. [Or: From apprenticeship training and conferences! It is reasonable reliance on other experts only if they are intelligently and objectively informed and if the expert relying on them can explain how that is so.]

Thus, you demonstrate for the judge that Mr. Expert is speaking out of a communally held ignorance and bias, and so it would be abuse of discretion to allow his testimony on a topic about which he has no qualifying expertise. Therefore, opposing counsel has no expert evidence to support his *in limine* motion against your expert.

(b) *Can Opposing Counsel's Legal Theory Work Against His Expert?*

Q: Mr. Expert, is it your expert opinion that anyone who has knowledge in Graphology is incompetent in handwriting identification?

If he answers, "No," opposing counsel has no expert evidence to support the challenge against your expert.

If he answers, "Yes," ask next:

Q: Do you hold that expert opinion as one who has expert knowledge of Graphology or as one who has no expert knowledge about it?

If he answers, "I have no expert knowledge," he has no basis for his assertion, and, therefore, opposing counsel again has no expert evidence to support his challenge.

If he answers, "Yes, I have expert knowledge about Graphology," then his knowledge equally disqualifies him in the way opposing counsel claims your expert's knowledge of Graphology disqualifies her. Thus we have a classical Aristotelian dilemma: Whether knowing Graphology or not knowing Graphology, Mr. Expert must be ruled disqualified by virtue of the opposing counsel's legal theory that your expert is disqualified for knowing Graphology.

(c) *Is There a Legal Rule Barring Opponent's Proposed* in limine *Evidence?*

Typically opposing experts will be offering testimony on the qualifications and credibility of your expert when the Graphology challenge, and any similar challenge, is mounted. See the various cases cited in this paper to the effect that such testimony is not admissible. Only the judge can evaluate qualifications of a witness and only the jury, or judge sitting as fact finder, can evaluate credibility of a witness. It seems to be reversible error for a judge to permit such testimony from one expert concerning another. Fight mightily for a favorable ruling, and, failing that, make a complete record for appeal.

(d) *A Final Thought*.

Note that in the above illustrative *voir dire* any term can be substituted for "Graphology," and the dynamics are the same. For example, they may claim your expert is unqualified because of once having been a housewife, a parent, a trapeze artist, a harbor seal trainer, or even an attorney. The same logical counterattack can be tailored to counter any related illogical attack.

SECTION X. CONCLUDING REMARKS.

Some aspects of the subject of this work have had to be omitted due to limits of space and of time to research and write an absolutely complete coverage. Indeed, a 1,000 page book would not be sufficient to treat fully every aspect of reliability in expert evidence. It is hoped that what has been given will serve as a guide for intelligent trial tactics and effective courtroom practice.

The golden rule of presentation of expert evidence may be to do so as if this were the only bite one will get at the apple. Thoroughness is never too thorough. In *Weatherred v State,* 15 S.W.3d 540 (TX Cr Ap 2000), the Court of Criminal Appeals ruled that defendant's eyewitness reliability expert was excludable and explained the principal reason why at page 542: "In addition, the appellate court must review the trial court's ruling in light of what was before the trial court at the time the ruling was made." Although proof that proffered expert evidence is relevant and reliable must be clear and convincing, "Appellant attempted to carry this considerable burden, at the critical time, by simply offering Deffenbacher's testimony and nothing else." Leave nothing to chance in presentation of your expert evidence and leave nothing unchallenged in the opposing party's expert evidence which can harm your cause.

Make your challenge before trial or at trial when opposing expert evidence is offered. The Supreme Court in *Maritime Overseas Corp. v Ellis,* 971 S.W.2d 402 (TX 1998), was adamant about this. Maritime did not make objection to any of Ellis' expert evidence at trial but fought it out before the jury. At page 408 the Supreme Court says: "In *Daubert*, the [Federal] Supreme Court considered 'the standard for admitting expert scientific testimony in a federal *trial*'...." [Emphasis added.] Then at page 409: "Similarly, in *Robinson*, we granted Du Pont's application for writ of error to decide 'the appropriate standard for the admission of scientific expert testimony,'...." And on page 410: "Thus, to prevent trial or appeal by ambush, we hold that the complaining party must object to the reliability of scientific evidence before trial or when the evidence is offered." If the objection is not at the very start of the testimony, what went before remains. Thus in *Harnett v State*, 38 S.W.3d 650 (Ct Ap Austin TX 2000), at page 657 it states that all opinion evidence of a social worker given prior to the objection was waived. In *Piro, et al., v Sarofim,* 80 S.W.3d 717 (Ct Ap Houston TX 2002), there was double failure in that regard. Appellants' objection to a *Daubert* hearing on the filings was made only on appeal; however, the rules do not require a live hearing. Further, appeal was based on testimony given at trial, after the *Daubert* hearing, while no objection was entered when the testimony was given.

One might on occasion escape failure to object at the moment, as in *State Farm Fire and Casualty Co. v Rodriguez*, 88 S.W.3d 313 (Ct Ap San Antonio TX 2002). At page 324: "After hearing arguments from both sides about whether there had been discovery abuse and, if so, the extent of the abuse, the trial court struck [expert] Carrasquillo's testimony.

"State Farm takes the position that the trial court could not strike the testimony because the objection was made too late. We do not believe the trial court is so restricted." But why risk it? Make your objection and bring forth your challenge before the trial court at the first opportune moment and on every legitimate basis that applies. The times and tides of trial wait not for the laggard.

SECTION XI. CASE CITATIONS AND BIBLIOGRAPHIC CITATIONS WITH REMARKS.

A. CASE CITATIONS.

Defendants are listed alphabetically with "See" reference to Plaintiffs, but not as numbered entries. An effort has been made to list all cases cited in the paper, including those cited within quotes from Courts of Law.

1. *$18,800 In U.S. Currency and One 1990 Nissan Automobile Model 240SX VIN JNIHS36POLW144462 v State*, 961 S.W.2d 257 (Ct Ap TX Houston 1 Dist 1997)

Affirming a judgment in a forfeiture proceeding, based on sale of cocaine.

At page 266, the Court of Appeals notes a point of error it found unnecessary to address. Appellant claimed that "the narcotics detection dog was biased and prejudiced in that each time the dog makes a positive alert to money, it is given a toy or reward." Thus a critical point of law is left to another court to decide.

2. *$7,058.84 In U.S. Currency v State*, 30 S.W.3d 580, 2000 Tex. App. LEXIS 6630 (Ct Ap Texarkana TX 2000)

Order of forfeiture of money reversed and rendered.

3. *Estate of Acuff, et al., v O'Linger*, 56 S.W.3d 527, 2001 Tenn. App LEXIS 238 (Ct Ap TN 2001); subsequent appeal, 2003 Tenn. App LEXIS 664 (TN Ap 2003); appeal denied, 2004 Tenn. LEXIS 190 (TN 2004)

Handwriting expert testimony.

4. *Adamson v Burgle, et al., In re Bates' Estate,* 186 S.W.2d 388 (Civ Ap TX San Antonio 1945)

A will contest with issues of testamentary capacity and undue influence.

5. *Aguilar v State,* 850 S.W.2d 640 (Ap TX); reversed and remanded, 887 S.W.2d 27 (Cr Ap TX 1994)

Prosecution for aggravated sexual assault in which trial court properly rejected proffered expert evidence that defendant would have contracted AIDS if he had assaulted the alleged victim who did have AIDS.

6. *Aguilera v State*, 75 S.W.3d 60, 2002 Tex. App. LEXIS 912 (TX Ap San Antonio 2002)

Conviction for indecency with a child and aggravated sexual assault reversed and remanded. Psychologist's testimony was improper opinion regarding the truthfulness of a class to which alleged victim belonged.

7. *Akin v Santa Clara Land Co., Ltd.*, 34 S.W.3d 334, 2000 Tex. App. LEXIS 7986 (Ct Ap San Antonio TX 2000)

Summary judgment for landlord and judgment against tenant on other issues than expert evidence affirmed.

8. *Alba v State,* 905 S.W.2d 581 (Ct Cr Ap TX 1995)

Conviction for murder during a robbery, the victim being defendant's wife.

9. *Amerada Hess Corp. v Wood Group Production Technology*, 30 S.W.3d 5, 2000 Tex. App. LEXIS 1205 (Ct Ap Houston TX 2000)

Partial summary judgment in personal injury lawsuit affirmed in part, reversed in part, and remanded.

10. *American West Airlines, Inc., v Tope,* 935 S.W.2d 908 (Ct Ap TX El Paso 1996)

Appellee sued for being terminated for having filed a workers' compensation claim.

11. *Amis v State,* 910 S.W.2d 511 (Ct Ap TX Tyler 1995)

Murder conviction affirmed. "Exclusion of expert witness testimony concerning trust, guardianship, and relationship between defendant and victim appropriate."

12. *Andrade v State*, 6 S.W.3d 584 (TX Ap Houston 1999)

House burglar's conviction affirmed. Defense witness was not qualified as expert in low vision. Proffered witness was an experienced orthoptist, which on cross-examination was shown "only involved being a liaison between an ophthalmologist and the patient." Having listed several lacking qualifications, at pages 591-592 the Court concludes the discussion of this issue: "Because she had not conducted any tests upon appellant, we agree with the trial court's conclusion that Saathoff was not qualified to offer an opinion on whether appellant could have read the statement signed by him at the police station."

13. *Arlington Memorial Hospital Foundation, Inc., v Baird,* 991 S.W.2d 918 (Ct Ap TX Fort Worth 1999)

Medical malpractice action due to corneal burn during cataract operation.

14. *Arzaga v State*, 86 S.W.3d 767, 2002 Tex. App. LEXIS 6253 (TX Ap El Paso 2002)

Affirming conviction of domestic violence. Bolstering by police officer was harmless error.

15. *Assiter v State*, 58 S.W.3d 743, 2000 Tex. App. LEXIS 6988 (Ct. Ap Amarillo TX 2000)

Affirming conviction for intentionally and knowingly causing bodily injury to each of three children.

16. *Ates v State*, 21 S.W.3d 384, 2000 TX App LEXIS 866 (Ap Tyler TX 2000)

Handwriting expert testimony.

17. *Avila v State,* 954 S.W.2d 830 (Ct Ap TX El Paso 1997)

Affirming conviction for murder of wife.

18. *Bagheri v State*, 119 S.W.3d 755.

Retrieve and add to text. Re retrograde analysis and harm analysis of erroneously admitted evidence.

19. *Barnes v State,* 839 S.W.2d 118 (Ct Ap TX Dallas 1992)

Conviction for aggravated sexual assault and burglary affirmed.

At page 124 are given the seven noninclusive "criteria to determine the reliability of novel scientific evidence" which the trial court can use. *Frye v U.S.*, 54 App.D.C. 46, 293 F. 1013, 34 A.L.R. 145 (1923), is not ruling, but Texas' *Kelly v State* is relied on. At pages 124-125 are given seven points from testimony by the State's DNA expert which satisfy the criteria for admissibility.

20. *Beard Drilling, Inc., v Steeger, et al.,* 361 S.W.2d 888 (Civ Ap TX Houston 1962); affirmed in part, reversed on other grounds by *Steeger, et al., v Beard Drilling, Inc.*, 371 S.W.2d 684 (TX 1963)

An action to recover value of oil well drilling equipment after blow out and fire. Appellant in 361 S.W.2d 888 failed to include in objection at trial what the answer would have been when the trial judge did not permit his expert to answer a particular question. The Court of Appeals may not speculate on what the answer would have been or its affect on the outcome.

21. *Bethune v State,* 821 S.W.2d 222 (TX Ap Houston 1991); affirmed, 828 S.W.2d 14 (Cr Ap TX 1992)

Conviction for aggravated sexual assault affirmed.

DNA expert evidence would have been admissible under either the relevancy standard or the *Frye* standard. However, the relevancy standard is the proper standard under Texas Rules of Evidence and Texas court rulings regarding admissibility of expert evidence.

22. *Blan v Ali*, 7 S.W.3d 741 (TX Ap Houston 1999)

Trial court's summary judgment in favor of defendants in medical negligence case involving treatment for stroke and lupus was upheld due to conclusory nature of affidavit by plaintiffs' expert.

At page 744, plaintiffs on medical malpractice claims "must establish the following elements of a *prima facie* case:

"(1) a duty requiring the defendants... to conform to a certain standard of conduct;

"(2) the applicable standard of care and its breach;

"(3) resulting injury; and

"(4) a reasonable close causal connection between the alleged breach of the standard of care and the alleged injury."

The affidavit by plaintiffs' expert was conclusory since it did not:

"(1) identify what aspect of Blan's condition deteriorated as a result of the alleged negligent acts;

"(2) explain how the alleged negligent acts caused Blan's condition to deteriorate in that manner;

"(3) identify what better outcome could have been produced by different actions; or

"(4) explain how or why a different treatment could have produced such an improved outcome."

How can one be sure one's expert covers all the necessities? We can combine and restate these two sets of items in general terms to fit other situations:

1. describe the specific injury suffered by complainant or victim;

2. identify the negligent act(s) attributable to defendant(s);

3. demonstrate the nexus between such negligent act(s) and the specific injury suffered;

4. describe the applicable standard which ought to have guided the conduct of defendant(s) but which such negligent act(s) violated;

5. show why such standard applied in the instant case;

6. identify alternative, non-negligent acts which were in accord with the applicable standard of care and which defendant(s) ought to have taken instead;

7. explain what would have been the otherwise beneficial, or at least less harmful, outcome of the alternative non-negligent act(s); and

8. give evidence of how and why the alternative non-negligent act(s) would have resulted in the otherwise beneficial, or at least less harmful, outcome.

23. *Broders, et al., v Heise,* 924 S.W.2d 148 (TX 1996), reversing *Heise v Presbyterian Hospital of Dallas, et al.*, 888 SW2 264 (Ct Ap TX Eastland 1994)

Upholding summary judgment for defendants in medical malpractice case.

Court of Appeals held that the trial court should have admitted defendant/appellant's expert who was of the same "school of medicine" as the doctor who treated the defendants. The entire case of plaintiff Heise hinged on the medical expert's testimony as to causation. However, Supreme Court "held that witness proffered by plaintiffs was not qualified as 'expert' on issue of cause in fact."

24. *Brown v State,* 881 S.W.2d 582 (Ct Ap TX Corpus Christi 1994)

Conviction for burglary and sexual assault using DNA evidence.

25. *Brownsville Pediatric Assoc. v Reyes*, 68 S.W.3d 184, 2002 Tex. App. LEXIS 37 (TX Ap 2002)

Jury verdict for patient in medical malpractice action affirmed.

"(2) expert witness testifying for defense was subject to same level of scrutiny as plaintiff's expert witnesses...." Expert issue was cause of newborn's blindness.

26. *Buls v Fuselier*, 55 S.W.3d 204, 2001 Tex. App. LEXIS 5456 (Ct Ap Texarkana TX 2001)

Affirming take-nothing judgment in action against podiatrist for negligent rendition of health care.

At page 211 the Court explains the difference between inferential rebuttals and affirmative defenses: "Inferential rebuttals are defensive theories that operate to rebut an essential element of the plaintiff's case by proving the truth of certain other facts. They are different from affirmative defenses in that an inferential rebuttal, as the name implies, rebuts part of the plaintiff's cause of

action, while an affirmative defense relieves the defendant of liability even if all the elements of the plaintiff's cause of action are established."
Burlington Northern Railroad Co., SEE: *Claar, et al., v Burlington Northern Railroad Co.*
27. *In the Interest of CDK, JLK, and BJK, Minor Children*, 64 S.W.3d 679, 2002 Tex. App. LEXIS 18 (Ct Ap Amarillo TX 2002)

Jury verdict terminating parental rights reversed and remanded. Test used to determine that father was a pedophile was not established as reliable.
28. *Carter v State*, 5 S.W.3d 316 (TX Ap Houston 1999)

Conviction for possession on less than an ounce of cocaine and sentence of nines years imprisonment were upheld. "We affirm the trial court judgment because we conclude that the bare minimum information was introduced to qualify a chemist as an expert."

At 318: "Appellant's objection was reasonable and certainly understandable. The prosecutor did a careless job of qualifying this witness as an expert."

Then at 319: "Although the issue here is very close, we do not believe the trial court abused its discretion in overruling appellant's objection to this witness.

"As we begin our discussion, we cannot help but note that we have not found a case in which so few qualifications were introduced for a police chemist."

After setting forth his dissenting opinion, Justice Don Wittig concludes at page 312, more in defense of forests used for papermaking than of the accused in the case: "The timely and specific objection to the expertise of Black should have been sustained. Then, the State, by expending a curative few questions properly qualifying Black, could probably have helped us all save one more tree."
29. *Castillo v State*, 79 S.W.3d 817, 2002 Tex. App. LEXIS 4712 (TX Ap Dallas 2002)

Conviction in jury trial for misdemeanor obscenity affirmed.
30. *Cecola v Ruley*, 12 S.W.3d 848, 2000 Tex. App. LEXIS 1056 (TX Ap Texarkana 2000)

The only evidence before trial court whether property could be partitioned in kind was from appellant's expert witness, who said it could not be. Trial court's ruling was overturned as "against the great weight and preponderance of the evidence."
31. *Chavers v State,* 991 S.W.2d 457 (Ct Ap TX Houston 1999)

Accident reconstruction estimating speed of a school bus at the time of the accident.
32. *Checker Bag Co. v Washington d/b/a/ County Fair Confections*, 27 S.W.3d 625, 2000 Tex. App. LEXIS 6052 (Ct Ap TX Waco 2000)

Affirming judgment and award for loss of cotton candy due to reduced shelf-life from defective plastic bags.

The four elements plaintiff must show to succeed in a Deceptive Trade Practices Act "laundry list" suit are:

- he is a consumer;
- defendant engaged in false, misleading or deceptive practices;
- plaintiff relied on these acts; and
- these acts were a producing cause of the consumer's damages.

City of Forth Worth, See: *Jamestown Partners, L.P., v City of Forth Worth*
33. *Claar, et al., v Burlington Northern Railroad Co., Eggar, et al., v Burlington Northern Railroad Co.*, 29 F.3d 499 (9 Cir 1994)

Opinions of Plaintiff experts were inadmissible because they did not rule out other possible causes.

34. *Clement v City of Plano*, 26 S.W.3d 544 (Ct Ap TX Dallas 2000)

Summary judgment for City in wrongful dearth action reversed and remanded.

At page 550, "the elements of the official immunity defense are that the government employee

"(1) performs a discretionary duty,

"(2) in good faith, and

"(3) within the scope of the employee's authority."

35. *Coastal Tankships, U.S.A., Inc., v Anderson*, 87 S.W.3d 591, 2002 Tex. App. LEXIS 4091 (Ct Ap Houston TX 2002)

Jury verdict on basis naphtha caused deceased's bronchiolitis obliterans organizing pneumonia (BOOP) reversed and remanded because expert evidence was insufficient to show general or specific causation.

This report of 34 pages is an excellent example of how courts of appeal might apply the guidelines for expert evidence as to causality, as well as a reflection of the debate that must go on during their deliberations because of the majority's reply to points in the minority opinion. I wish to give suggestions illustrating how guidelines for proving causality could be applied to handwriting identification evidence, though I cannot say I ever saw it applied in the ways suggested. Since handwriting experts making identifications testify to causality, why should they be exempt from the stringent rules binding other experts?

Beginning at page 601 The Court considers general and specific causality. Maybe these two concepts can apply to handwriting evidence in this way:

1. General causality answers the question *could* this suspected writer have made the disputed writing? An identification is defeated if just one of three abilities is disproven:

(a) Physical ability;

(b) Mental ability, which would cover at least:

• no psychopathology preventing writing or writing this well;

• necessary knowledge of contents; and

• knowledge and mastery of style employed;

(c) "Social ability," for lack of a better term, which would cover at least:

• Presence in area at the time; and

• Access to tools and materials employed.

2. Specific causation answers the question *did* this person make the disputed writing?

(a) Traditionally handwriting examination limits itself to this question;

(b) No matter how persuasive an identification is, it ought not prevail in face of proven impossibility; that is, negative general causality. Yet it at times does.

3. At page 604 The Court considers "differential diagnosis," defined as "a clinical method whereby a doctor determines which of several potential diseases or injuries is causing the patient's symptoms by ruling out possible causes...until a final diagnosis for proper treatment is reached." Robert Saudek employed the term "differential diagnosis" to describe what the handwriting analyst does in determining the cause of a writing being as it is (*Saudek 1929*). The forensic handwriting expert makes a differential diagnosis but without considering any other cause than the pre-chosen suspect. However, the expert should be required:

(a) to consider all reasonably possible writers;

(b) to offer cogent explanation why each suspect not identified was positively eliminated;

(c) to delineate the precise complex of traits that would prove the identified suspect wrote anything he wrote; and

(d) explain why all contrary evidence is not compelling.

4. If medical doctors must do that for the most routine of their prescriptions, why not handwriting experts who make for more encompassing findings (complete, personal identifications) than why someone has this or that illness or injury? Just as doctors must consider "layers" of possible causes, so handwriting experts should be made to consider "layers" of explanations for handwriting phenomena, such as physiological movements, mechanics of tools and materials, circumstantial influences, and so on. Of 12 causes of individuality in handwriting listed by Saudek (*Saudek 1929*), the expert should be required to state which are or are not active in the instant case, what their residual effects are on the handwriting, and how they identify or eliminate any given suspect.

5. At page 616 the concurring opinion states: "A probability *smaller than* one-third simply cannot also be *more probable* than one-third." [Emphases in original.] Then later: "[O]ne cannot exclude something that everyone is exposed to" in considering possible causes of disease.

(a) Regarding the first quote, no single trait can be probative of authorship unless it is proven to belong to one person only. Yet more handwriting experts "prove" identity by listing single traits that never occur together among the exemplar writings. It is a complex of traits that occur together but do not depend on each other that alone can be identifying, such as are used in fingerprint and DNA identification methods. Only when a probability is established that no other writer has *this* identifying complex of traits can *this* writer be identified.

(b) Regarding the second quote, I submit that the dynamic works in an opposite way in identification methods. Any single, significant trait in the questioned writing which is not among the exemplar writings of the identified suspect prevents the identification until a reasonable explanation is given.

36. *Codner v Arellano d/b/a Road Runner Concrete*, 40 S.W.3d 666, 2001 Tex. App. LEXIS 1257 (Ct Ap Austin TX 2001)

Directed verdict for subcontractor in suit by homeowner for negligently poured foundation.

37. *Cohn v. State.* 849 S.W.2d 817, 819-20 (Tex.Crim.App. 1993)

Cited by *Arzaga v State*, 86 S.W.3d 767 (TX Ap El Paso 2002), on the issue of bolstering and by *Jensen v State*, 66 S.W.3d 528 (TX Ap Houston 2002), on the behavioral characteristics of sexually abused children.

38. *Cole v Central Valley Chemicals [CVC], Inc.*, 9 S.W.3d 207 (TX Ap San Antonio 1999)

In suit for recovery of lost crop because herbicide allegedly failed to control weeds, trial court's summary judgment in favor of CVC was reversed and remanded. CVC argued plaintiff was not expert since he had no knowledge of the chemicals in herbicides. Plaintiff countered that "one need not be a chemist to see that a field is choked with weeds."

39. *Cole v State,* 839 S.W.2d 798 (TX Ct Cr Ap 1992)

The Court of Criminal Appeals used *US v Oates*, 560 F.2d 45 (2 Cir 1977), as authority to conclude that chemists with the Texas Department of Public Safety are "law enforcement personnel," and thus their reports made in the context of criminal investigations are not admissible under the hearsay exception for government administrative records, nor if the person generating the report is not available to testify when they are introduced at trial. Given the recent reports of deliberately distorted and even manufactured "evidence" by some law enforcement laboratory technicians (*Starrs 1996*), the rule would seem to be favoring the side of both justice and caution.

40. *Compugraphic Corp. v Morgan,* 656 S.W.2d 530 (Ct Ap TX Dallas 1983); reversed and remanded by *Morgan v Compugraphic Corp.*, 675 S.W.2d 729 (TX 1984)

Suit against manufacturer of typesetting machine for alleged on-job personal injury due to noxious fumes.

41. *Corn v State Bar of California*, 68 Cal.2d 461, 67 Cal.Rptr. 401, 439 P.2d 313 (1968)

Handwriting expert permitted to testify that a writing was deliberately disguised, thus addressing the mental state of the writer.

42. *Cruz v Paso Del Norte Health Foundation f/k/a and d/b/a Providence Memorial Hospital*, 44 S.W.3d 622, 2001 Tex. App. LEXIS 2001 (Ct Ap TX 2001)

Medical malpractice action for injuries allegedly sustained by child during mother's birth labors. Jury verdict for Defendant affirmed. "Central to this appeal is the science of fetal monitoring."

The report offers a rather detailed presentation and analysis of the expert testimony on both sides. It is one of those reports which might give an attorney a feel for how Courts of Appeal think. Experts also would do well to learn from this case how trial and appeal judges tend to evaluate expert testimony.

43. *In the Interest of D.S., D.S., D.S., and C.R.R.*, 19 S.W.3d 525, 2000 Tex. App. LEXIS 2903 (TX Ap Ft. Worth 2000)

Termination of parental rights affirmed.

44. *Daubert v Merrell Dow Pharmaceuticals, Inc., Schuller v Merrell Dow Pharmaceuticals, Inc.,* 727 F.Supp. 570 (S.D. CA 1989); affirmed, 951 F.2d 1128 (9 Cir 1991); vacated and remanded, 125 L.Ed.2d 469, 113 S.Ct. 2786 (1993); affirmed 43 F.3d 1311 (9 Cir 1995); cert. denied, -- US --, 116 S.Ct. 189, 133 L.Ed.2d 126 (1995)

The Bendectin case which occasioned U.S. Supreme Court's sweeping rulings on admissibility of scientific evidence, which was clarified by *Kumho* and which was adopted as the ruling case in Texas by *du Pont*.

45. *DeLuca, et al., v Merrell Dow Pharmaceuticals, Inc., et al.,* 131 F.R.D. 71; reversed and remanded, 911 F.2d 941 (3 Cir 1990)

This Bendectin case governs the admissibility of expert testimony, according to *U.S. v Velasquez*, 33 Virgin Is. 265. It is also cited by *Merrell Dow v Havner* for its extended discussion of statistical methodology.

46. *Dico Tire, Inc., v Cisneros,* 953 S.W.2d 776 (Ct Ap TX 1997)

Products liability action against tire manufacturer.

47. *Doty-Jabbaar v Dallas County Child Protective Services*, 19 S.W.3d 870, 2000 Tex. App. LEXIS 3638 (TX Ap Dallas 2000)

Termination of parental rights of an Indian parent reversed and remanded.

Having given birth, mother tested positive for cocaine, and a test indicated that the child had been exposed to cocaine *in utero*. Neither parent attended the court hearing nor did the Indian tribe intervene when notified. A social worker, as sole witness called, testified as an expert in support of termination, which required all evidence be beyond a reasonable doubt, including the expert's qualifications. Though relevant Federal rules were not binding on state courts, the Court of Appeals applied them as had other states. The expert did not qualify specifically with "substantial education and experience" in Indian culture and childrearing practices.

48. *Doyle Wilson Homebuilder, Inc., v Pickens, et al.,* 996 S.W.2d 387 (Ct Ap TX Austin 1999)

Homeowners sued on theory that fire which destroyed their home was caused by either improper installation of, or defective materials in, electrical wires. No expert for either party could say what exactly was the cause of the fire.

49. *Duff v Yelin, et al.,* 721 S.W.2d 365 (TX Ap Houston 1986); affirmed, 751 S.W.2d 175 (TX 1988)

Fixing responsibility for damage to ulnar nerve following surgery required expert testimony as to cause. Accuracy of photographic evidence must be shown.

50. *Duggan v Marshall, et al.*, 7 S.W.3d 888, 1999 TX App LEXIS 9465 (Ap Houston TX 1999)

Handwriting expert testimony.

51. *Duperier v Texas State Bank*, 28 S.W.3d 740, 2000 Tex. App. LEXIS 5740 (Ct Ap TX Corpus Christi 2000)

Judgment for bank in action for securities fraud affirmed as modified.

du Pont, See: *E.I. du Pont de Nemours & Co., Inc., v Robinson*

52. *Duren v State*, 87 S.W.3d 719, 2002 Tex. App. LEXIS 5889 (Ct Ap Texarkana TX 2002)

Conviction for capital murder of child affirmed. Medical expert testimony, that child's injuries were inconsistent with Defendant's different stories of how they occurred, was proper.

53. *Durham v State*, 956 S.W.2d 62 (Ct Ap TX Tyler 1997)

Affirming conviction for manslaughter with deadly weapon.

This case says that *Kelly v State* set the standard for the admission of novel scientific standards, but other cases say that *Kelly* applies to all scientific evidence. Thus, saying that it applies to the novel does not say that it applies only to the novel.

54. *E.I. du Pont de Nemours & Co., Inc., v Robinson,* 923 S.W.2d 549 (TX 1995)

In a case considering alleged fungicide damage to an orchard, the Supreme Court adopts the Federal case *Daubert* as ruling in Texas. By way, as it were, of returning the favor, some Federal cases cite this case, as in *Mascarenas v Miles, Inc.*, 986 F.Supp. 582 (W.D. MO 1997).

55. *Egan v Egan*, 8 S.W.3d 1 (TX Ap San Antonio 1999)

When one partner sought partition of ranch, court ordered it sold and partnership dissolved. Real estate agent was qualified as an appraisal expert to testify ranch was not partitionable.

Petitioner complained to the Court of Appeals about the order to partition the ranch. The Court pointed out that the order was the direct result of his own institution of the legal action. We can draw a life lesson from the experience: One might complain about the inexorable results of one's own choices, but life will still be inexorable. Thus, choices ought to be made with prudent consideration of the possible outcomes.

Eggar, et al., v Burlington Northern Railroad Co., See: *Claar, et al., v Burlington Northern Railroad Co.*

56. *Ellis v State*, 86 S.W.3d 759, 2002 Tex. App. LEXIS 6260 (Ct Ap Waco TX 2002)

DWI conviction affirmed, testimony of officer uncertified to administer HGN being harmless.

57. *Emerson v State,* 846 S.W.2d 531 (TX Ap Corpus Christi); affirmed, 880 S.W.2d 759 (Ct Cr Ap TX 1994)

Conviction for driving while intoxicated affirmed.

This case applies the three *Kelly* criteria and its seven factors to horizontal gaze nystagmus (HGN) and rules it scientifically reliable. The extensive discussion covering seven pages has these parts:

I. Novel Scientific Evidence
II. Reliability of HGN Test
  (a) Judicial Notice
  (b) Analysis
  (c) Other Jurisdictions
III. Reliability—Texas
  (a) Theory
  (b) Technique
  (c) Application
IV. Proper Scope of HGN Technique

V. Application of Rule 403 Factors

Equally extensive dissents center on the issue that the reliability, and thus admissibility, was established through independent review by Court of Appeals and not by proponent of the novel scientific technique, the State, meeting its legal burden at trial. Nevertheless, *Emerson* seems to be the landmark case for HGN in Texas and is a salutary and enlightening study in judicial reasoning.

58. *Epps v State*, 24 S.W.3d 872, 2000 Tex. App. LEXIS 4548 (Ct Ap TX Corpus Christi 2000)

Affirming conviction for aggravated robbery.

59. *Exxon Pipeline Co. v Zwahr*, 35 S.W.3d 705, 2000 Tex. App. LEXIS 8038 (C), 155 Oil & Gas Rep. 51 (TX Ct Ap Houston 2000); reversed and remanded, 88 S.W.3d 623 (TX 2002)

Award to property owner for condemnation for pipeline easement was excessive, founded on improper bases of expert opinion.

60. *Faries v Atlas Truck Body Mfg. Co.,* 797 F.2d 619 (8 Cir 1986)

Held that "accident report and trooper's opinion testimony as to cause of accident were not sufficiently trustworthy; and admission of report and testimony was reversible error."

61. *Fields v State,* 932 S.W.2d 97 (Ct Ap TX Tyler 1996)

Conviction for aggravated possession of cocaine affirmed.

Held that "testimony by state's narcotics expert as to drug trafficker patterns and characteristics was properly admitted into evidence."

62. *First Coppell Bank v Smith,* 742 S.W.2d 454 (Ct Ap TX Dallas 1987)

Graphoanalyst held to be fully qualified as questioned document examiner and was properly allowed to testify as a handwriting expert. The same graphoanalyst was nor permitted to testify in *U.S. v Bourgeois and Crowe.*

63. *First Southwest Lloyds Insurance Co. v MacDowell,* 769 S.W.2d 954 (TX Ap Texarkana 1989)

Though an expert witness may disclose underlying data otherwise inadmissible, it is not an absolute right, otherwise much inadmissible evidence could be introduced under guise of explaining the reasonable bases of the opinion.

64. *Fitts v State,* 982 S.W.2d 175 (Ct Ap TX Houston 1998)

Conviction for capital murder by arson and for remuneration. Held that "scientific evidence of hydrocarbon-sniffing dogs was admissible."

65. *Fletcher v State*, 39 S.W.3d 274, 2001 Tex. App. LEXIS 162 (Ct Ap Texarkana TX 2001)

Conviction for delivery of controlled substance affirmed.

66. *Ford Motor Co. v Aguiniga, et al.*, 9 S.W.3d 252 (TX Ap San Antonio 1999)

Products liability action because van's motor cut out at high speed causing a fatal accident.

67. *Ford Motor Co. v Gonzalez*, 9 S.W.3d 195 (TX Ap San Antonio 1999)

At page 199: "Naked expert opinion unsupported by fact can be said to have a 'suspension problem' of it own because it carries no probative force in law." In a products liability case, "direct proof of a defect is not required." Quoting a 1973 case, the Court explained this is because "the consumer ordinarily is ignorant of both the product's intricacies and its maker's activity," but also because of "a consumer's right to receive a safe product from the manufacturer.... If the plaintiff has no evidence of a specific design defect or manufacturing defect, he may offer evidence of the product's malfunction as circumstantial proof of the defect."

68. *Ford Motor Co. v Ridgway*, 135 S.W.3d 598 (TX 2004)

Copy from LexisOne.

69. *Forte v State,* 935 S.W.2d 172 (Ct Ap TX Ft Worth 1996)

Conviction for aggravated robbery affirmed.

An expert on eyewitness reliability was properly excluded by the trial court.

70. *Foust v Estate of Roland Walters, et al.*, 975 S.W.2d 329 (Ct Ap TX San Antonio 1998); affirmed in part; reversed and rendered in part, 21 S.W.3d 495, 2000 Tex. App. LEXIS 2358 (Ct Ap TX San Antonio 2000)

Suit for damages from crop dusting of herbicide on neighbor's farm.

71. *Fowler v State,* 958 S.W.2d 853 (Ct Ap TX Waco 1998)

Conviction for aggravated kidnaping with life sentence affirmed.

A family violence counselor's testimony was found to be inadmissible under *Kelly*.

This case lists the questions which the trial court is to consider concerning the admissibility of expert evidence. As a review and alternative outline of this book's theme, we can summarize them thus:

1. Is it based on scientific knowledge?
2. Will it help the trier of fact understand a fact in issue?
3. Is it relevant, which means sufficiently tied to the facts of the case to assist the trier of fact to resolve some factual issue?
4. Is it sufficiently reliable to help the jury reach accurate results?
   (a) Does it have a valid underlying scientific theory?
   (b) Was a valid technique used to apply this theory?
   (c) Was the technique properly applied in this case?
5. Is the reliability proved by clear and convincing evidence?
6. Is the probative value outweighed by danger of unfair prejudice?
7. Or by confusion of issues?
8. Or by misleading the jury?
9. Or will it be needlessly cumulative?
10. Nonexclusive factors which can be used to determine reliability are:
   (a) The extent of acceptance by the relevant scientific community.
   (b) Qualifications of the testifying expert.
   (c) Supporting literature.
   (d) The potential rate of error.
   (e) The availability of other experts to test and evaluate the technique.
   (f) The clarity with which the theory and technique can be explained to the court.
   (g) The experience and skill of the person applying the technique in the instant case.

72. *Franco v State*, 25 S.W.3d 26, 2000 Tex. App. LEXIS 1138 (Ct Ap TX El Paso 2000)

Murder conviction affirmed where "error in allowing unqualified expert to give misleading testimony on blood splatter evidence was harmless."

73. *Frohne v State,* 928 S.W.2d 570 (Ct Ap TX Houston 1996)

Appellant was convicted of sexually abusing a child. He unsuccessfully contended that his trial counsel had failed to challenge the state expert's qualifications and theory.

74. *Frye v United States,* 54 App.D.C. 46, 293 F. 1013, 34 A.L.R. 145 (1923)

The case in which was formulated the "general acceptance" test for scientific evidence. Under Federal Rules, and in states following Federal practice, it is replaced by *Daubert*. Some states, such as California, still follow *Frye*. However, in practice, at times it seems more honored by authors on expert evidence than by trial courts. In one trial, an expert said that he had never examined logged entries but made up his theory and method specifically for the instant case. He knew nothing of the relevant literature except a monograph by the opposing expert, which he pointedly, and conveniently, rejected as invalid. A *Frye* motion to exclude the expert and his testimony was denied by the judge.

75. *Gainsco County Mutual Insurance Co., et al., v Martinez*, 27 S.W.3d 97, 2000 Tex. App. LEXIS 4445 (Ct Ap TX San Antonio 2000)

Award for lost earnings, future earnings and future physical impairment from vehicle accident affirmed. Admission of expert testimony on accident reconstruction was harmless, as well as exclusion of portion of expert testimony on lost wages and of biomechanical expert. Plaintiff's vocational rehabilitation expert was admissible.

76. *Gammill v Jack Williams Chevrolet, Inc.,* 875 S.W.2d 27 (Ct Ap TX Fort Worth 1994); summary judgement after remand affirmed, 983 S.W.2d 1 (Ct Ap TX Fort Worth 1996); affirmed, 972 S.W.2d 713 (TX 1998)

Product liability suit arising from vehicular accident in which child was killed.

This discussion refers only to the Supreme Court decision in 972 S.W.2d 713. Proffered expert evidence addressed purported failure of seat belt and obstruction to release of gas petal. Since the authors consider this a retrograde decision to some degree, an extended discussion is given.

This case gives with one hand and takes away with the other. Thus:

1. At page 715: "[T]he third issue is whether the alleged defects in the restraint system caused Jaime's death...." At page 719: "Huston, too, lacks any qualifications to testify concerning the cause of Jaime's death." But at the end of that same paragraph: "The district court abused its discretion in holding that Huston was not qualified to testify that the rear restraint system in the Gammills' vehicle was defective."

2. At page 722: "On the one hand, an exception [under Rule 702] for evidence based on a witness's skill and experience would easily swallow the rule.... On the other hand, there are many instances when the relevance and reliability of an expert witness's testimony *are* shown by the witness's skill and experience." [Emphasis in original.] The rule just got swallowed.

3. At page 726, after saying enough experience with bees would make one an expert on the flight of bees: "Experience alone may provide a sufficient basis for an expert's testimony in some cases. A more experienced expert may offer unreliable opinions, and a lesser experienced expert's opinions may have solid footing." No guidance is offered on when to apply the difference, much less on how to tell the difference.

4. The Court asserts that Rule 702 applies to all expert testimony, while *Daubert* and *Robinson* apply to all scientific expert testimony. But the *Robinson* factors need not always be applied, just its general requirement of reliability need be satisfied. Thus, the goal remains but the means of achieving it are eliminated, while a purely subjective estimate of "too great an analytical gap" is substituted. There are no analytical tools provided by which to identify or assess any analytical gap, nor to determine a sufficiency of expert skill and experience meriting an amorphous "analytical gap" assessment versus application of solid, specific guidelines.

The authors believe *Fowler v State*, 958 S.W.2d 853 (Ct Ap TX Waco 1998), gave a more reasonable opinion on assessing what is presented as nonscientific expert testimony. At page 864 the Court of Appeals said: "Rule 702 makes no distinction between scientific, technical or specialized knowledge. The evidence under the rule is treated collectively.... If the specialist who is testifying cannot explain to the court a theory used to reach his or her conclusions, the way that theory is applied by others with the same 'specialized knowledge,' and the way it will be applied in the present case, why should such evidence be said to be reliable enough that it will assist the jury? In making this determination about scientific evidence, *Kelly* lists seven *nonexclusive* factors for the trial court to consider. We acknowledge that each of the factors may not be satisfied by the proponent of the evidence. Indeed, all may not apply. There may be others. We believe that if at least some of the *Kelly* factors cannot be satisfied, then the testimony should be excluded." [Emphases in

original.] Maybe the reasoning of the *Fowler* Court will prevail in the long run.

An *ad hominem* reply can be crafted from what is provided in *Fitts v State*, 982 S.W.2d 175 (Ct Ap TX Houston 1998). The trainer and handler of two hydrocarbon-sniffing dogs testified to the dogs' training (a generally accepted method), their rate of error (49 out of 50 correct alerts), verification by laboratory testing, etc. If expert canines can satisfy virtually all of the *Kelly* factors, surely any experienced and skilled expert human should be able to satisfy at least a minority of them.

Some courts are unwilling to let expert qualifications bestow an assured premise for opinions. *In the Interest of D.S., D.S., D.S., and C.R.R.*, 19 S.W.3d 525 (TX Ap Ft. Worth 2000), at page 528, appellant "asked court to instruct the State to lay the predicate mandated for scientific evidence under the *Daubert/Robinson* standard." The court instead accepted physician as an expert and admitted his opinion. At page 529 the reason is given: "[R]eliability can be achieved based upon the expertise and skill of a testifying expert." In light of other cases, one could still argue it was merely an *ipse dixit*, or that there was no objective and testable opinion, or that another expert could not perform the analysis. In further discussion in the *D.S.* report, judicial redemption from all this is intimated. Other physicians used the same criteria in such situations, and the child's burns were objective and verifiable facts. Further, though the report does not say so, one could say the opinion was an application of common sense. That there was no "analytical gap" was not based solely on awe for the witness' expertise and skill, nor ought it ever be.

However, *Gammill* has spawned in increasing number of cases where mere experience is the sole theoretical basis for an opinion. Citing *Gammill*, the case *Nissan Motor C., Ltd., v Armstrong*, 32 S.W.3d 701 (Ct Ap TX Houston 2000), ruled at page 708: "*See id.* [*Gammill*] at 726 (recognizing that in non-scientific cases, it is impossible to set out specific criteria for evaluating the reliability of an expert witness). Indeed, experience alone can provide a sufficient basis for an expert's testimony in some cases." It was said there was no analytical gap, but neither was there any description of a gapless analysis, while in reversing *Armstrong* the Supreme Court did not advert to its own *Gammill* decision having been properly cited and logically applied. How can an opposing party objectively test the expert's self-described and self-defined experience which provides no concrete statement of a testable theory? *Gammill* has effectively canceled *du Pont/Daubert*, not even leaving us with a *Frye* standard. *J C Penny Life Insurance Co. v Baker*, 33 S.W.3d 417 (Ct Ap Ft. Worth TX 2000), also illustrates the gutting of any standards for admissibility. Headnote 17 reads in part: "Expert opinions based largely upon experience and observations in the medical field were not the type of testimony that could be easily evaluated under the Robinson factors..." So the *Gammill* escape route was used to abandon a *Robinson* evaluation, which the expert apparently would have failed *in toto*. All the expert's reasons for his opinion were his asserted qualifications as an expert which were of the kind that is not assessable.

One hopes there is not a new doormat at the courthouse that reads: "Welcome, junk science evidence and hired guns!"

77. *Gates v State*, 24 S.W.3d 439, 2000 Tex. App. LEXIS 3625 (Ct Ap TX Houston 2000); denial of post-conviction motion for DNA testing affirmed, 2003 Tex. App. LEXIS 9855 (C) (Ct Ap TX Houston 2003)

Murder conviction affirmed. Police officer could testify as expert that victim did not commit suicide.

78. *General Electric v Joiner,* 522 US 126, 118 S.Ct. 512, 139 L.Ed.2d 508 (1997)

At 139 L.Ed.2d, page 519, the Federal Supreme Court states: "[N]othing in either *Daubert* or the Federal Rules of Evidence requires a district court to admit opinion evidence which is connected to existing data only by the *ipse dixit* of the expert. A court may conclude that there is simply too great

an analytical gap between the data and the opinion proffered."

79. *General Motors Corp. v Harper*, 61 S.W.3d 118 (Ct Ap Eastland TX 2001)

Product liability action alleging seat belt system was defective by design and caused driver's eventual death. Awards to Plaintiffs reversed because "neither physician's testimony nor design expert's testimony established causation."

This is an excellent example of how a Court of Appeals will apply relevant case law to a question of causation, laudably resisting the temptation to say an expert's experience will suffice as the scientific premise. Regarding expert evidence as to defect by design, it was challenged not on the basis of admissibility but on that of legal sufficiency. The two experts failed on several fronts, all of which provide a nice checklist for things an expert as to causation should routinely consider and satisfy prior to offering an opinion for consideration:

- offer an alternative to the defective design;
- the alternative should answer the problems in the defective design without introducing any others;
- the alternative design should not have previously been found defective and rejected;
- a substantial body of literature should be cited in support;
- cite all relevant tests reported in the literature and show how they support the expert opinion;
- present evidence that the system in dispute did not work as designed;
- define all technical terms and explain why they are applicable;
- explain exactly how the defective design caused the harm complained of;
- test the alternative system offered if at all possible;
- demonstrate how the alternative would have performed better than the system complained of;
- show how the alternative was available, feasible and preferable at the time the defective system was put in place;
- verify that all assumed facts do not vary materially from what either party will establish at trial;
- demonstrate how the system complained of failed to meet applicable industry or governmental standards at the time of manufacture or installation;
- if it did meet such standards, show how higher and more reasonable standards were technically and economically feasible at the time;
- avoid merely speculative inferences;
- the proposed reconstruction of events to explain causation must be in harmony with physical and scientific laws which are applicable;
- the proposed reconstruction of events must not involve a self-contradiction or contradict documentation, such as medical records, upon which the expert opinion relies;
- tests relied on or performed during investigation must be comparable to the event out of which the complaint arises;
- offer evidence of similar causations or injuries as the one alleged;
- the theorized cause should be generally accepted in the relevant discipline;
- it should have been subjected to peer review, publication, and testing; and
- carefully assess opposing expert reports and depositions to counter each new factual or theoretical issue raised in contradiction of one's own.

80. *General Motors Corp., et al., v Iracheta*

81. *General Motors Corp., et al., v Sanchez, et al.,* 966 S.W.2d 545 (Ct Ap TX San Antonio); reversed and remanded, 997 S.W.2d 584 (TX 1999)

"Family and estate of pickup truck driver, who was killed when truck rolled backward and pinned him to corral gate, brought action for products liability...." When he exited the truck, the gear

went from neutral to reverse, since he had failed to set the brake, shift to "Park," and turn off the motor, as the manufacturer's booklet instructed. You might still win with such a client. In *Nissan Motor C., Ltd., v Armstrong*, 32 S.W.3d 701 (Ct Ap TX Houston 2000), Plaintiff did a similar thing, but the jury found no negligence by her. After an initial minor accident of uncontrolled acceleration forward, Armstrong deliberately backed up to see damage to front of vehicle. The car accelerated in reverse causing the second, serious accident.

82. *Gilbert v California,* 63 Cal.2d 690, 47 Cal.Rptr. 909, 408 P.2d 365, (1966); certiorari, 384 US 985, 16 L.Ed.2d 1003, 86 S.Ct. 1902 (1966); remanded, 87 S.Ct. 1951, 18 L Ed 2 1178, 388 US 263 (1967)

This is one of the landmark cases holding that handwriting exemplars are merely physically identifying characteristics and compelling them from an accused violates no constitutional privilege.

At 18 L Ed 2 1178, page 1183, the U.S. Supreme Court states that if compelled exemplars taken by the government are unrepresentative, the accused can make an unlimited number more for the use of the government and defense handwriting experts. Though a party is barred by the *post litem motam* rule from making and using voluntary exemplars, once the opponent exercises the right to compel exemplars, it seems that the bar is removed, at least to some degree.

83. *Glenn v C & G Electric, Inc.,* 977 S.W.2d 686 (Ct Ap TX Fort Worth 1998)

A worker's suit against a subcontractor because of injuries allegedly caused by negligence of the subcontractor's employee.

84. *Glover v State,* 787 S.W.2d 544 (Ct Ap TX Dallas 1990); affirmed, 825 S.W.2d 127 (Ct Cr Ap TX 1992)

Conviction for aggravated sexual assault affirmed.

This case involved DNA expert testimony, which "appears to be a case of first impression in Texas." *Kelly v State* was decided the same year by Court of Criminal Appeals, but earlier. However, *Glover* was at the appeal court level before *Kelly*.

85. *Goldberg v State*, 95 S.W.3d 345, 2002 TX App LEXIS 6114 (Ct Ap Houston TX 2002)

Handwriting expert testimony.

86. *Gonzales v State*, 4 S.W.3d 406 (TX Ap Waco 1999)

Conviction in child sex abuse case upheld.

87. *Grace v Colorito*, 4 S.W.3d 765 (TX Ap Austin 1999)

Affirming summary judgment in negligence suit against counselor.

At page 769: "To prevent a summary judgment on an unsound-mind theory, the non-movant needs to produce specific evidence that would enable the court to conclude that she did not have the mental capacity to pursue litigation for a definite period of time, or produce a fact-based expert opinion to the effect." Plaintiff did not produce expert testimony. "Grace offers no testimony except her own to support the assertion that for at least four years she was of unsound mind.... Grace testified that she is working to become a licensed chemical dependency counselor, but she did not produce evidence to show that she is an expert, qualified to testify regarding her own mental state."

At page 770, cases cited to support Grace's appeal only underline need for expert testimony.

"According to the supreme court, expert testimony regarding repressed memory is not objectively verifiable. *See S.V. v. R. V.*, 933 S.W.2d 1, 19-20 Itex. 1996)." Then: "Evidence of false memories is subject to the same pitfalls as repressed or recovered memories.... Opinions in this area simply cannot meet the objectively verifiability element for extending the discovery rules."

88. *Green, et al., v Brantley, et al.*, 11 S.W.3d 259 (TX Ap Ft. Worth 1999)

Summary judgment for defendants/appellees affirmed in legal malpractice case, which alleged underlying medical malpractice and wrongful death suit was settled for too little money because of

fraudulent misrepresentations by appellants' attorneys.

Affidavits by attorney experts for appellants and appellees are compared, the latter setting forth these things but not the former:

1. expert's qualifications in the issues addressed;

2. personally known facts through personal investigation and study;

3. applicable law;

4. an estimate, as an experienced trial lawyer in such cases, as to how facts of the case would play in a jury trial, avoiding mere speculation;

5. how plaintiffs would not have been able to establish causality at trial;

6. the problem that surviving husband quickly cohabited with another woman after wife's allegedly wrongful death; and

7. the applicable professional standards.

At page 268: "The most Appellants did in their response was present the trial court with a weak surmise or suspicion of a fact, that amounts to 'no evidence.'"

89. *Green v State*, 55 S.W.3d 633, 2001 Tex App LEXIS 1112 (Ct Ap Tyler TX 2001); certiorari denied, *Gregory v Texas*, 2003 U.S. LEXIS 2967 (US 2003)

Affirming conviction and life imprisonment for capital murder.

"False confession expertise" was properly excluded. Expert claimed "statement analysis" could show jury that Defendant's confession was a false statement. This is also called linguistics, stylistics, and several other names, each apparently chosen so that the "expert" can escape the questionable qualities of others who do the same work, which is discover authorship or deception or other literary facts by analyzing text. In whatever guise it is offered, it is rejected by courts far more often than not, the exception being where an expert in a specific field offers assistance in understanding terms related to the expert's specific field. Thus at page 638, these reasons are given for rejecting it:

- there was no case law recognizing such expert testimony;
- the witness had never testified in this area before;
- there was no certification process;
- there were no periodicals dedicated to the process;
- the proffered opinion was subjective;
- it was not readily replicable by another expert; and
- "the issue was one of credibility couched in psychiatric or pseudo-psychiatric terms."

When one considers that linguistic scholars after many years of many debates still disagree on all the classical issues, such as whether St. Paul wrote which of his Epistles or what unsigned Federalist papers were written by which author or authors, it is dubious that one lone expert witness can know for sure anything through textual analysis, whatever label is given it or whatever professional fee is charged. Yet victims of the "expertise" have lost reputation, property and liberty to its assertions.

90. *Green v Texas Workers' Compensation Insurance Facility,* 993 S.W.2d 839 (Ct Ap TX Austin 1999)

Exclusion of testimony of worker's physician on incapacity from alleged chemical exposure was reversible error, though the Court of Appeals gave no direct ruling on the exclusion of his expert testimony on causality; the trial court had even forbidden the mentioning of the treating physician's name. If the treating physician was not qualified as an expert, he was a competent percipient witness.

91. *Greenberg Gallery, Inc., v Bauman,* 817 F.Supp. 167 (D.C. DC 1993); affirmed without opinion, 36 F.3d 127 (DC Cir 1994)

Buyers failed to establish that a Calder mobile was an art forgery.

92. *Gregory v State*, 56 S.W.3d 164 (Ct Ap Houston TX 2001)

Conviction on four counts of indecency with child affirmed.

93. *Guadalupe-Blanco River Authority v Kraft*, 39 S.W.3d 264 (Ct Ap Austin TX 2001); reversed and remanded, 77 S.W.3d 805 (TX 2002)

In Court of Appeals, jury award in condemnation action affirmed. This is another case citing *Gammill* that there are no standard criteria for expert testimony. Criteria for assessing reliability of expert testimony will vary depending on the type of expert and the nature of the evidence, and experience alone may provide sufficient basis for expert testimony. What is by rule a basis for admitting the expert becomes by case law sufficient basis for the opinion itself. Thus the standard is to have no standards.

In reversing *Kraft*, the Supreme Court in essence said they referenced the wrong case for guidance, saying that in *Havner*, "we held that the 'underlying data should be independently evaluated in determining if the opinion itself is reliable." But yet when the Supreme Court had said in *Gammill* that the expert's experience could serve as the basis for his opinion, it had in effect said do not bother looking at the underlying data which need not always be there. In this case it was held that the expert had not used the sales comparison method, since he reconfigured a long strip of land a distance from the highway and without access to utilities into a make-belief, compact parcel with easy access. The bottom line is play it safe in preparing your expert evidence and satisfy both a casual *Gammill* approach and the approach with the closest scrutiny of data, theory and method.

94. *Guzman v Synthes (USA)*, 20 S.W.3d 717 (TX Ap San Antonio 1999)

Judgment notwithstanding the evidence affirmed in products liability case because fracture fixation plate failed.

95. *Hagedorn v Tisdale*, 73 S.W.3d 341 (TX Ap Amarillo 2002)

Plaintiff's expert failed to issue timely and proper report in medical malpractice action. From Court's summary: "(4) trial court erred in failing to dismiss patient's claims with prejudice; and (5) attorney's fees awarded to physician were reasonable."

Summarizing the various points made in the case report, we make this checklist for an adequate expert report:

1. A good faith summary of the expert's opinions as of the date of the report;
2. State that the expert knows the applicable standards of care;
3. The manner in which care is alleged to have failed to meet this standard;
4. State with specificity the causal relation between that failure and the injury suffered;
5. Need not include all plaintiff's proof;
6. Inform defendant of specific conduct questioned;
7. Provide sufficient basis for court to conclude claim has merit;
8. Need not meet standards for report in support of summary judgment;
9. Show expert's specific qualifications by training or experience to address applicable standards of care;
10. Include expert's CV;
11. State expert was practicing medicine at time of alleged injury or when report was issued;
12. Be issued on a timely basis and served on each defendant within time limits required by statute unless proper extension granted; and
13. Not be either speculative or a mere statement of conclusions.

We submit that a written report along this order, or one even more substantial and complete, ought to be legally required of all experts in all cases.

96. *Hall v Huff,* 957 S.W.2d 90 (Ct Ap TX Texarkana 1997)

This medical malpractice case involved expert testimony by an out-of-state physician on nursing and medical standards.

97. *Harnett v State*, 38 S.W.3d 650 (Ct Ap Austin TX 2000)

Sexual assault conviction affirmed. Social worker testified as both lay and expert witness.

98. *Hartman v State,* affirmed, 917 S.W.2d 115 (Ct Ap TX San Antonio 1996); reversed and remanded, 946 S.W.2d (Ct Cr Ap TX 1997); conviction affirmed as reinstated, 2 S.W.3d 490 (Ct Ap TX San Antonio)

Conviction for driving while intoxicated affirmed.

An intoxilyzer test is rendered admissible by statute, but proper application to the particular case must be shown. After the Court of Criminal Appeals remanded it for the trial court to consider the *Kelly* factors, the trial court found retrograde extrapolation (estimating range of blood alcohol concentration at an earlier time period) to be scientifically reliable in the instant case. The conviction was reinstated and then affirmed on appeal.

The same expert was found to have given unreliable evidence in *Mata v. State.*

99. *Harvey v Culpepper,* 801 S.W.2d 596 (TX Ap Corpus Christi 1990)

Expert testimony concerning a diabetic driver's blood sugar after the accident permitted the jury to find that the feeling of illness was a warning of imminent blackout and thus negligence was not unforeseeable.

100. *Heidelberg v State*, 36 S.W.3d 668, 2001 Tex. App. LEXIS 269 (Ct Ap Houston TX 2001)

Conviction for aggravated sexual assault affirmed.

Heise v Presbyterian Hospital of Callas, et al., See: *Broders, et al., v Heise*

101. *Helena Chemical Co. v Wilkins, et al.*, 18 S.W.3d 744, 2000 Tex. App. LEXIS 1530 (TX Ap San Antonio 2000); affirmed, 47 S.W.3d 486, 2001 Tex. App. LEXIS 38 (TX 2001)

Action by farmers against seller of seed for deceptive trade practices, breach of warranties and fraud. Witness, who was a plant scientist and agronomist, was properly admitted as expert.

At 47 S.W.3d 486, pages 500-501, Supreme Court gives a detailed list of eleven sources for data that the expert relied on.

102. *Helm v Swan, et al*., 61 S.W.3d 493, 2001 Tex. App. LEXIS 4211 (Ct Ap San Antonio TX 2001)

Affirming summary judgment in medical malpractice action, holding "that testimony of two expert witnesses was properly excluded as not supported by medical literature."

103. *Henderson v State*, 14 S.W.3d 409, 2000 Tex. App. LEXIS 1370 (TX Ap Austin 2000)

Conviction for driving while intoxicated affirmed. Breath test is admissible by statute, thus the legislature already has recognized the validity of its theory and technique.

104. *Hepner v State,* 966 S.W.2d 153 (Ct Ap TX Austin 1998)

Capital murder conviction with life sentence affirmed.

Trial court could have reasonably found expert evidence on random match probability reliable.

105. *Hernandez v State,* 772 S.W.2d 274 (Ct Ap TX Corpus Christi 1989)

Murder conviction affirmed.

An expert can testify on the ultimate issue of fact but may not state a legal conclusion. A forensic pathologist had properly testified that a knife wound was intentional and not accidental.

106. *Hernandez v State*, 55 S.W.3d 700 (Ap Ct Corpus Christi TX 2001)

Reversed and remanded the granting of motion to revoke community supervision after defendant allegedly tested positive for marihuana.

"[H]eld that the scientific evidence testimony of the state's expert witness pertaining to the

urinalysis analyzer was not reliable...."

107. *Herndon v State*, 543 S.W.2d 109 (TX Cr Ap 1976),

Conviction of bookmaking affirmed. Expert in cryptography decoded exhibit reproduced at page 112 with details at 113. Handwriting reproduced at page 118: "It does not take a trained eye to recognize that the handwriting in the two instances is identical.... It is reasonable to assume that the fact finder, the trial judge, made the same comparison." Such is authorized by statute.

108. *Herring v Bocquet*, 933 S.W.2d 611 (Ct Ap TX San Antonio 1996); reversed and remanded, *Bocquet v Herring*, 972 S.W.2d 19 (TX 1998); affirmed on remand, *Herring v Bocquet*, 21 S.W.3d 367, 2000 Tex. App. LEXIS 203 (TX Ap San Antonio 2000)

Trial judge had reduced award of fees for Bocquet's' attorney, as prevailing party, by $10,000 to $50,000. In 933 S.W.2d 611, Court of Appeals had said that was too high. Supreme Court did not like this further reduction. In 21 S.W.3d 367 the $50,000 award is affirmed. Herrings' attorney had complicated a simple issue of access. Bocquet's expert witness, an attorney, said that the issue was neither novel nor unique, number of conferences was not unusual, fees were reasonable and necessary, and that each issue raised by Herrings' attorney had to be diligently countered.

109. *Hicks v State,* 860 S.W.2d 419 (TX Cr Ap 1993)

Affirming conviction for capital murder during sexual assault.

Provides a well presented explanation of the reliability of the technique and protocol used in extracting DNA.

110. *Hight v Dublin Veterinary Clinic, et al*., 22 S.W.3d 614, 2000 Tex. App. LEXIS 3833 (TX Ap Eastland 2000)

Affirming no-evidence summary judgment for defendants in suit over death of goat during operation to remove its horns.

At page 620: "[T]his court has three questions to resolve in determining whether it was proper for the trial court to strike appellants' expert affidavit: (1) was the witness qualified as an expert in the field; (2) was the testimony relevant to the issues in the case, and (3) was the testimony based upon a reliable foundation?"

At page 622, nine things are said to have been lacking in the affidavit:

- potential side effects from the anesthesia;
- any actual side effects which occurred;
- foundational reliability;
- potential success of any resuscitative treatments;
- relation of goat's death to the anesthesia;
- relation of goat's death to failure to monitor properly;
- methodology employed;
- underlying basis of opinion; and
- how records which were reviewed relate to the opinion.

Be sure your expert is as thorough in fulfilling requirements for stating all evidential foundations supporting the reliability of her opinion as the *Hight* expert was thorough in failing to do so.

111. *Hitt v State*, 53 S.W.3d 697, 2001 Tex. App. LEXIS 4975 (Ct Ap Austin TX 2001)

Conviction for sexual contact and sexual indecency by exposure with child affirmed.

112. *Holloway v State,* 613 S.W.2d 497 (TX Cr Ap 1981)

Testimony of psychiatrist on probability that defendant would commit future violent acts was without probative value.

113. *Houghton v The Port Terminal Railroad Association,* 999 S.W.2d 39 (Ct Ap TX Houston 1999)

In affirming take-nothing judgment for defendant/appellee, Court of Appeals found that

proffered expert on railroad equipment and brakes was properly excluded.

114. *Huckaby v A. G. Perry & Son, Inc.*, 20 S.W.3d 194, 2000 Tex. App. LEXIS 2852 (TX Ap Texarkana 2000)

Take-nothing judgment in suit for wrongful death in vehicle accident reversed and remanded.

115. *Hurrelbrink v State*, 46 S.W.3d 350, 2001 Tex. App. LEXIS 2195 (Ap Amarillo TX 2001)

Conviction for murder affirmed. Testimony of anthropologists on footprint comparison admissible

116. *J C Penny Life Insurance Co. v Baker*, 33 S.W.3d 417, 2000 Tex. App. LEXIS 7807 (Ct Ap Ft. Worth TX 2000)

Awarding of insurance accidental death benefits for drowning in vehicle accident affirmed.

117. *In the Matter of J.D.P., a Juvenile*, 85 S.W.3d 420, 2002 Tex. App. LEXIS 6094 (TX Ap Fort Worth 2002)

Affirming conviction for reckless injury to a child by firearm.

118. *Jackson v State*, 50 S.W.3d 579, 2001 Tex. App. LEXIS 3664 (Ct Ap Ft. Worth TX 2001); petition for discretionary review refused, *Jackson v Dretke*, 2003 U.S. Dist. LEXIS 15742 (N.D. TX 2003)

Affirming conviction for intoxicated manslaughter. Expert's testimony regarding cocaine level in Defendant's blood was relevant.

Testimony as to high, medium or low level of cocaine in blood, by extrapolating back from time of testing to time of accident based on cocaine's range of half life, met legal standards. Legislature had set no numerical level for cocaine intoxication but defined intoxication generally as loss of mental or physical faculties by ingestion of any substance. Toxicological chemist testified to loss of faculties and resulting actions while driving from intoxication by cocaine, as well as to theory and method of extrapolation, even saying the machine used was working properly.

119. *Jamestown Partners, L.P., v City of Forth Worth*, 83 S.W.3d 376, 2002 Tex. App. LEXIS 5771 (Ct Ap TX Fort Worth 2002)

Concerning substandard condition of apartment complex and no-evidence point of error.

120. *Jarrell v Park Cities Carpet and Upholstery Cleaning, Inc.*, 53 S.W.3d 903, 2001 Tex. App. LEXIS 5769 (Ct Ap Dallas TX 2001)

Directed verdict in suit for personal injury from chemicals used in cleaning cigarette smoke odor reversed and remanded. Plaintiff's treating physician and expert toxicologist were improperly excluded.

121. *Jenkins v U.S.,* 307 F.2d 637 (DC Cir 1962)

Psychologists were improperly found at trial to be unqualified to give opinions related to medical conditions. At pages 649-650 the concurring opinion sets forth things which ought to be covered in qualifying an expert psychologist. It would also make an excellent guide when you *voir dire* a psychologist.

122. *Jensen v State*, 66 S.W.3d 528, 2002 Tex. App. LEXIS 215 (TX Ap Houston 2002)

Affirming conviction for aggravated sexual assault of a child.

123. *Johnston v. United States*, 597 F.Supp. 374 (1984)

Cited by *Viterbo et ux. v Dow Chemical Co.,* 646 F.Supp. 1420 (E.D. TX 1986); affirmed, 826 F.2d 420 (5 Cir 1987), regarding advocacy in an expert.

124. *Jordan v State,* 877 S.W.2d 902 (Ct Ap TX Ft. Worth 1994); reversed and remanded, 928 S.W.2d 550 (Ct Cr Ap TX 1996); cert denied, 510 US 919, 114 S.Ct. 313, 126 L.Ed.2d 260 (199-); affirmed, 950 S.W.2d 210 (Ct Ap TX Ft. Worth 1997)

Conviction for aggravated robbery eventually affirmed.

In *Jordan v State,* 877 S.W.2d 902, expert's eye witness reliability testimony was ruled to be properly excluded due to, among other reasons, failure to consider all of the factors affecting reliability of the eyewitness' identification, to examine the witness personally and give a thorough fact-specific analysis. The Court of Criminal Appeals, however, found him qualified and remanded the case for a new trial whereat the expert again was excluded and a second conviction resulted, both of which were upheld.

If faced with an expert on eyewitness unreliability, maybe a cross-examiner can ask the witness if the factors making eyewitnesses unreliable apply to the evidence seen by the expert's own eyes.

125. *Joy v Bell Helicopter Textron, Inc., et al; Allison Gas Turbine Division of General Motors Corp. v Turley and the Government of District of Columbia,* 999 F.2d 549 (Ap DC 1993)

Expert in future earnings of decedent did not even come under the liberal rule permitting expert testimony with a weak factual basis.

126. *K-Mart Corp. v Honeycutt*, 24 S.W.3d 357, 43 Tex. Sup. J. 1002, 2000 Tex. LEXIS 70 (TX 2000), reversing and rendering *Honeycutt v KMart Corp.*, 1 S.W.3d 239 (Ct Ap TX Corpus Christi 1999)

Take-nothing judgment of trial court upheld in personal injury from shopping carts. Plaintiff's "human factors and safety expert would not have assisted trier of fact to understand evidence or determine fact issue." None of his opinions were beyond common sense of jury. Several cases are cited where human-factors experts come in for decidedly less than high marks.

The trial court's exclusion of expert testimony is reviewed for abuse of discretion which occurs when its ruling is, at page 360:

- arbitrary,
- unreasonable, or
- without reference to any guiding rules or legal principles.

If the trial court did not specify the grounds, "we will affirm the trial court's ruling if any ground is meritorious." This case seems to suggest that the trial court can both play it safest and leave the hard work of evaluation to the Supreme Court by giving no reason.

127. *Kelly v State,* 792 S.W.2d 579 (Ct Ap TX Fort Worth 1990); affirmed, 824 S.W.2d 568 (Ct Cr Ap TX 1992)

Murder conviction affirmed.

This is the case which, in considering DNA evidence, established that in Texas the admissibility of novel scientific evidence is governed by the Rules of Evidence rather than by the *Frye* standard. The latter becomes one of several nonexclusive factors to consider, rather than the deciding factor.

At 824 S.W.2d 568, page 573, the three essential criteria and seven nonexclusive factors are given to answer the question: "How does the proponent of novel scientific evidence prove it to be reliable?" The entire passage is as follows:

"How does the proponent of novel scientific evidence prove it to be reliable? As a matter of common sense, evidence derived from a scientific theory, to be considered reliable, must satisfy three criteria in any particular case: (a) the underlying scientific theory must be valid; (b) the technique applying the theory must be valid; and (c) the technique must have been properly applied on the occasion in question. See generally Tex. R. Crim. Evid. 705; P. Giannelli & E. Imwinkelried, *Scientific Evidence* § 1-1 (1986). Under Rule 104(a) and (c) and Rule 702, *all three criteria must be proven to the trial court*, outside the presence of the jury, before the evidence may be admitted. Factors that could affect a trial court's determination of reliability include, *but are not limited to*, the following: (1) the extent to which the underlying scientific theory and technique are accepted as valid by the relevant scientific community, if such a community can be ascertained; (2) the qualifications

of the expert(s) testifying; (3) the existence of literature supporting or rejecting the underlying scientific theory and technique; (4) the potential rate of error of the technique; (5) the availability of other experts to test and evaluate the technique; (6) the clarity with which the underlying scientific theory and technique can be explained to the court; and (7) the experience and skill of the person(s) who applied the technique on the occasion in question. See 3 J. Weinstein & M. Berger, *Weinstein's Evidence* para. 702[03] (1991)." [Emphases in original.]

It would seem that item (2) considers general qualifications in the discipline in question while item (7) would consider actual aptitude in the precise issue of fact specific to the instant case.

128. *Kirkpatrick v State,* 747 S.W.2d 833 (Ct Ap TX Dallas 1987)

Psychologist, expert regarding child victims of sex abuse, was improperly permitted to overstep the proper bounds of opinion testimony.

129. *Kos v State*, 15 S.W.3d 633, 2000 Tex. App. LEXIS 2280 (TX Ap Dallas 2000)

Conviction for several counts of sexual crimes against minors affirmed. In punishment phase FBI agent's answer to hypothetical which fit defendant was helpful to jury in assessing moral culpability. Agent spoke of a sexual offender against boys who was "preferential offender" and subcategory of "seduction type," careful, long range seduction through gaining control by gifts, etc., being "the most persistent and prolific with the largest number of victims."

130. *Kroeger Co. v Betancourt and Wife,* 996 S.W.2d 353 (Ct. Ap TX Houston 1999)

Supplier's employee used grocery store's straddle jack pallet mover and was injured. Expert testified that the store was responsible because of its failure to do routine maintenance.

131. *Kumho Tire Co., Ltd., et al., v Carmichael, et al.,* 526 US —, 143 L.Ed.2d 238, 119 S.Ct. 1167 (1999), reversing *Carmichael v Samyang Tire, Inc.*, 131 F.3d 1433 (11 Cir 1997)

This case clarifies *Daubert*, applying the gatekeeper function to all expert testimony. All expert testimony must be reliable under the standards set forth in *Daubert* or any other reasonable set of standards. The fit must be to the instant case. The trial court may consider one or more of the *Daubert* guidelines, as the process is flexible. This provides the best reply to the anti-expert experts who have been claiming that identification expertise is not reliable because it does not meet one narrowly construed test and/or the specific criteria enumerated in *Daubert*. But the *Kumho* court insists at page 251: "*Daubert* makes clear that the factors it mentions do *not* constitute a 'definitive checklist or test.'" [Emphasis in original.] So what is the value of the guidelines it offered? At page 252: "It made clear that its list of factors was meant to be helpful, not definitive." The rule of evidence makes no relevant distinction between kinds of expert testimony; thus, all must be proved reliable. Section IX of this work shows how handwriting expertise does indeed meet an extensive set of standards based on the many cases considered herein. We submit that other identification expertise could also.

Texas had already clearly adopted the equivalent ruling in reference to the criteria given in *Kelly v State*. In *Turner v State*, 886 S.W.2d 859 (TX Ct Ap 1994), at page 868, the Court states: "Appellant contends that none of the specific *Kelly* predicates were proven by the State in the instant case. It is clear to us, however, that appellant misreads the Court of Criminal Appeals' holding in *Kelly*. The Court in *Kelly* merely requires that the proffered expert testimony is reliable and relevant...." Thus, those like the anti-expert experts, who claim a specific test must be met for evidence to be scientific and to be admissible, are really saying that the Rules of Evidence and the Courts of Law have it all wrong. A rather impertinent assertion, albeit implied.

132. *In re Lare's Estate*, 352 Penn. 323, 42 A.2d 801 (1945)

A case in which anachronisms in handwriting helped to prove the expert opinion to be incorrect.

133. *Ledbetter v. Missouri Pacific Railroad Co.*, 12 S.W.3d 139 (TX Ap Tyler 1999)

Appellant/plaintiff prevailed on second but not first of two work-related accidents. His industrial safety expert was properly barred from testifying that OSHA regulations were the applicable legal rule. He was permitted to give his opinion as to correct safety measures

134. *Ledesma v State,* 993 S.W.2d 361 (Ct Ap TX Fort Worth 1999)

Murder conviction in which DNA evidence was found reliable and relevant and in which ballistics matching was also reliable and relevant.

At page 368 are given 16 numerated points which the DNA expert testified to in order to support both her qualifications and DNA testing's reliability and scientific acceptance. Not much else would be left to chance if one followed this example.

135. *Lenger v. Physician's General Hospital, Inc.*, 455 S.W.2d 703 (TX 1970)

Cited by *Duff v Yelin, et al*., 751 S.W.2d 175 (TX 1988), on the circumstances under which the trier of fact may decide the issue of causation.

136. *Lincoln Property Co. v DeShazo*, 4 S.W.3d 55 (TX Ap Ft. Worth 1999)

Lessor was liable when a bar patron was injured in an inadequately patrolled parking lot.

137. *In re the Estate of Orville Peter Livingston; Livingston v Nacim*, 999 S.W.2d 874, 1999 TX App LEXIS 6718 (Ap El Paso TX 1999)

Handwriting expert testimony.

138. *Logan v State*, 48 S.W.3d 296 (Ap TX Texarkana 2001); affirmed, 89 S.W.3d 619, 2002 Tex. Crim. App. LEXIS 222 (Ct Cr Ap TX 2002)

Conviction for insurance fraud affirmed as modified.

Failure to object to signature authentication at trial waived it on appeal. At page 301: "Authentication of handwriting may be established by a comparison performed either by experts or by the jury. Tex,Code Crim.Proc.Ann. art. 38.27 (Vernon 1979)...."

139. *Longoria v McAllen Methodist Hospital,* 771 S.W.2d 663 (Ct Ap TX Corpus Christi 1989); reversed after remand, *Longoria v United Blood Services*, 907 S.W.2d 605 (Ct Ap TX Corpus Christi 1995); reversed and rendered, *United Blood Services v Longoria*, 938 S.W.2d 29 (TX 1997)

After summary judgment for appellees/defendants was given by the district court, the Court of Appeals (771 S.W.2d 663) reversed and remanded. Upon another summary judgement for appellees/defendants in the district court, the Court of Appeals (907 S.W.2d 605) reversed and remanded on basis that testimony on standard of care for blood banks by a qualified expert precluded summary judgement. The Supreme Court (938 S.W.2d 29) reversed the Court of Appeals and rendered judgment. "The Supreme Court held that trial court did not clearly abuse its discretion in rejecting parents' expert's testimony on grounds of lack of qualification."

140. *In the Interest of M.D.S., A Child,* 1 S.W.3d 190 (Ct Ap TX Amarillo 1999)

A case involving termination of parental rights.

141. *Manning v State*, 84 S.W.3d 15, 2002 Tex. App. LEXIS 4341 (Ct Ap Texarkana TX 2002); reversed and remanded, 114 S.W.3d 922, 2003 Tex. Crim. App. LEXIS 307 (TX Ct Cr Ap 2003); affirmed upon remand, 126 S.W.3d 552, 2003 Tex. App. LEXIS 9861 (Ct Ap TX Texarcana 2003)

Conviction for vehicular manslaughter reversed. No evidence of half life of cocaine metabolite based on blood test was offered so that jury could extrapolate to degree of intoxication at time of occurrence.

Court of Criminal Appeals found evidence of cocain metabolite relevant as being only way State could establish use of cocaine prior to the accident, and thus dangers were outweighed by probative value. Hearing upon remand found admission of State's character witness during sentencing phase to be error but harmless.

142. *Maritime Overseas Corp. v Ellis,* 886 S.W.2d 780 (Ct Ap TX Houston 1994); affirmed, 971 S.W.2d 402 (TX 1998)

Appellee had won suit for neurotoxic effects of exposure to Diazinon. Expert evidence of medical doctors was properly received. Two ideas are roundly rejected: Scientific evidence of the most rigid kind should be dispositive (the Court of Appeals much prefers the jury system!) and *Daubert* swept away all precedents regarding scientific evidence.

143. *Martinez, et al., v City of San Antonio, et al.; Hernandez, et al., v Via Metropolitan Transit, et al.; Ferguson, et al., v Alamo Iron Works, Inc., et al.*; 40 S.W.3d 587, 2001 Tex. App. LEXIS 609 (Ct Ap San Antonio TX 2001)

Affirming summary judgment for Defendants in suit over alleged contamination from dust containing lead.

That symptoms of Plaintiffs were consistent with lead poisoning is not evidence Defendants' dust caused them. Beware of an opponent who asks your or his expert if the facts are consistent with a hypothetical cause and wants a straight up yes-or-no answer. In this case the symptoms were consistent with several other causes also.

144. *Martinez v State*, 993 S.W.2d 751 (TX Ap El Paso); reversed, 22 S.W.3d 504 (TX Ct Cr Ap 2000)

The Court of Appeals reversed and remanded conviction for unlawful delivery of less than one gram of cocaine, in turn being reversed by the Court of Criminal Appeals.

At 993 S.W.2d 751, page 759, the San Antonio Court of Appeals is quoted from *Garza v State*, 963 S.W.2d 926, at 930, regarding a defendant's appeal that an error by the court caused an unjust conviction. That Court asked and answered this rhetorical question: "Then, for each right implicated by the error, we will ask: did the error affect the jury's verdict?" The six points given could serve as a guide for laying a proper foundation at trial for a later appeal:

(1) the source of the error,

(2) the nature of the error,

(3) whether or to what extent it was emphasized by the State,

(4) the probable collateral consequences of the error,

(5) how much weight jurors probably placed on the error, and

(6) whether declaring the error harmless would encourage the State to repeat it with impunity.

The last point seems to be the most important, since time and again courts of appeal let the prosecution have benefits of errors at trial on the simplistic assertion that it made no difference in the outcome. If error has no affect on the outcome, why is it practiced and repeated by law enforcement and prosecution? There should be some sanction for any violation of the rules by State representatives, a sanction which would be felt both personally and institutionally in order to encourage both personal and institutional reform.

145. *Marvis v State*, 3 S.W.3d 68, 1999 Tex. App. LEXIS 6250 (TX Ap Houston 1999); reversed and remanded, 36 S.W.3d 878, 2001 Tex. Crim. App. LEXIS 9 (TX Ct Cr Ap 2001); conviction affirmed upon remand, 2001 Tex. App. LEXIS 8184 (TX Ap Houston 2001)

Conviction for murder reversed and acquitted as to murder as principal and remanded as to murder as party. State's medical expert said gun shot wounds inflicted by defendant would not have killed victim with proper medical care, but other assailant did inflict fatal wounds. The reversal was on basis that jury instruction on murder as principal and murder as party was not error when taken in context.

146. *Mascarenas v Miles, Inc.,* 986 F.Supp. 582 (W.D. MO 1997)

In a case alleging cancer from pesticide exposure, the District Court cites the Texas *du Pont* case

on the principle that an expert must eliminate other reasonably possible causes in order to prove one cause is more likely than not the real cause. This raises an interesting question about handwriting expertise. Would the handwriting expert thus have to address all other reasonably possible writers, since saying one person wrote a disputed writing is equivalent to saying that such person is the cause of the writing? Could the handwriting expert rightly say an identification is definite without being able definitely to eliminate individually and specifically every reasonably alternative suspect writer? One reliability test of an expert's opinion is whether each alternative writer can be positively proven not to be the writer to the same degree of certainty that the expert gave for the writer who was identified (*Matley 1992*).

147. *Mata v State*, 13 S.W.3d 1 (Ap San Antonio TX 1999); remanded, 46 S.W.3d 902, 2001 Tex. App. LEXIS 45 (Ct Cr Ap TX 2001); conviction affirmed upon remand, 75 S.W.3d 499, 2002 Tex. App. LEXIS 611 (TX Ap San Antonio 2002); reversed and remanded, 122 S.W.3d 813, 2003 Tex. Crim. App. LEXIS 961 (Ct Cr Ap TX 2003); reversed and remanded to trial court, 143 S.W.3d 331, 2004 Tex. App. LEXIS 6463 (TX Ap San Antonio 2004)

46 S.W.3d 902:

Conviction for driving while intoxicated remanded because of failure to show by clear and convincing evidence that retrograde extrapolation to estimate blood alcohol level was reliable in present case.

Case report is itself a learned treatise, giving detailed description of retrograde analysis and extensive quotes from the record on key elements of the testimony. Dissenting opinion is based on alleged misinterpretation of the testimony by the majority, showing how brilliant minds can view the same data differently. Concurring opinion asserts it is junk science. The latter will give a defense attorney ample ammunition and multiple approaches by which to attack the expertise.

The subsequent history of the case had to do with the proper harm analysis of the improperly admitted expert testimony as to retrograde analysis. Final remand to the trial court was based on application of *Bagheri v State*, 119 S.W.3d 755.

148. *Matthews v State*, 40 S.W.3d 179, 2001 Tex. App. LEXIS 1427 (Ct Ap Texarkana TX 2001)

Conviction for capital murder affirmed. Psychiatrist was properly admissible as expert on determining sanity.

149. *McGann v State*, 30 S.W.3d 540, 2000 Tex. App. LEXIS 6277 (Ct Ap Ft. Worth TX 2000)

Conviction on two counts for solicitation of capital murder of wife affirmed.

150. *McIntosh v State,* 855 S.W.2d 753 (TX Ct Ap 1993)

Defendant's conviction for the murder of his wife was upheld.

151. *McIntyre v Smith*, 24 S.W.3d 911, 2000 Tex. App. LEXIS 5099 (Ct Ap TX Texarkana 2000)

Directed verdict for nephrologist, in death of patient undergoing kidney dialysis, reversed and remanded.

152. *Mega Child Care, Inc. v Texas Department of Protective and Regulatory Services*, 29 S.W.3d 303, 2000 Tex. App. LEXIS 6517 (Ct Ap TX Houston 2000); reversed and remanded to trial court, 81 S.W.3d 470, 2002 Tex. App. LEXIS 4792 (Ct Ap TX Houston 2002); affirmed, *Texas Department of Protective and Rehabilatory Services v Mega Child Care, Inc.*, 2004 Tex. LEXIS 780 (TX 2004)

Finding that child care facility was operating in violation of the law affirmed.

153. *Melendez v Exxon Corp.,* 998 S.W.2d 266 (Ct Ap TX Houston 1999)

Wrongful discharge case on basis that employee refused to perform an illegal act in petrochemical plant. Expert testimony on employer's compliance with environmental regulations was irrelevant on fact of the actual air emissions.

154. *Mercier v MidTexas Pipeline Co., Mercier v Teco Pipeline Co.*, 28 S.W.3d 712, 2000 Tex. App. LEXIS 5782, 149 Oil & Gas Rep. 194 (Ct Ap TX Corpus Christi 2000)

Regarding right of eminent domain in constructing gas pipeline to deliver natural gas. Failure to object on basis witness was not disclosed as expert did not preserve issue for appeal. Also, must state specific grounds if not clear from context. Property owner may testify to value of own property if reasonable basis given.

155. *Merrell Dow Pharmaceuticals, Inc., v Havner,* 907 S.W.2d 535 (Ct Ap TX 1995); reversed, 953 S.W.2d 708 (TX 1997); certiorari denied, 523 US 1119, 118 S.Ct. 1799, 140 L.Ed.2d 939 (1998)

In an action alleging birth defects from mother's use of Bendectin, Court of Appeals affirmed as to actual damages but reversed on punitive. The Supreme Court reversed as to actual damages, ruling plaintiff must "offer evidence excluding other possible causes of diseases with reasonable certainty." Thus we may infer that the reasoning of the Court of Appeals as to expert testimony was fine as far as it went; it just did not go far enough.

At 907 S.W.2d, page 554, the Court of Appeals concludes a discussion of truth in science versus truth in courts of law. It notes the constant change in scientific theory: "Many theories that were accepted as true 100 years ago have been so changed as to be scarcely recognizable, from our ideas about the culture of the Mayas to particle physics. This search and constant revision will continue into the future..... Science is not separated into two worlds: true and junk. Reasonable experts may arrive at differing conclusions given the same data.... The purpose of the trial is to resolve the dispute, not to find universal truth." What is never said explicitly in the case law is that scientists historically latch onto theories for which they do not have sufficient factual evidence and are not a bit reluctant to create new theories at the least hint of previously unknown data. To counterbalance this, they often resist objective evidence that their communal opinion is definitely wrong, such as when the scientific establishment was faced with Pasteur. This is a poignant and compelling reason never to give science the deciding voice in resolving social disputes. Historically, juries seem less prone to the intellectual herd instinct of organized science, far less reluctant to look at new and conflicting data, and far more open to give the minority view a hearing.

This case is cited by several others as to the four occasions when a ruling will be made that evidence is legally insufficient to support a finding:

1. There is a complete absence of evidence for the finding;
2. This is evidence to support the finding, but rules of law of evidence bar the court from giving any weight to the evidence;
3. There is no more than a mere scintilla of evidence to support the finding; or
4. The evidence conclusively establishes the opposite of the finding.

156. *Mescalero Energy, Inc., v Underwriters Indemnity General Agency, Inc., et al.*, 56 S.W.3d 313, 2001 Tex. App. LEXIS 6352, 58 Oil & Gas Rep. 325 (Ct. Ap Houston TX 2001)

Summary judgement in favor of insurers and underwriters. "[E]xpert testimony can establish a reasonable definition of an industry term; ...the meaning of 'formation,' as used in the policy's definition of 'blowout,' was ambiguous." This was a kind of linguistic or stylistic evidence based on a specialty within the relevant field.

At page 325 the court says that per *Gammill* the expert's experience was a satisfactory basis for his opinion, "although Davenport did not cite independent industry sources for his definition." Thus the fruit of *Gammill* is whatever a "qualified expert" can be hired to dream up, provided there has been sufficiently "extensive" experience hiring oneself out. In other words, the rule requiring that expert evidence be reliable is met by expert evidence of unproven reliability if the expert has had enough unimpeachable experience doing the questionably reliable.

157. *Minnesota Mining and Manufacturing Co. (a/k/a 3M) v Atterbury, et al.,* 978 S.W.2d 183 (Ct Ap TX Texarkana 1998)

Product liability and negligence action brought by users of silicon gel breast implants. Having lost big with the jury, appellant won hands down with the Court of Appeals.

To sustain his burden in such a case, plaintiff must prove:

1. the product can cause the injury or illness in general;

2. the product specifically caused plaintiff's illness or injury; and

3. other possible causes of plaintiff's illness or injury are eliminated.

At page 198 the Court gives guidelines for the foundation to have an epidemiological study admitted into evidence. These include:

1. the expert must identify the study;

2. the expert must explain how the methodology of the study is scientifically reliable;

3. a single study with a statistically significant association will alone not satisfy a legal insufficiency review;

4. the study must be verified by another study; and

5. the study should have been peer reviewed.

The Court then reviews at page 199 the kind of evidence which could be offered absent epidemiological studies to support proof of general causation.

158. *Missouri Pacific Railroad Co. v Navarro*, 90 W.S.3d 747, 2002 Tex. App. LEXIS 4533 (TX Ap San Antonio 2002)

Claim of bone marrow cancer caused by diesel exhaust denied.

159. *Mitchell Energy Corp. v Bartlett, et al.,* 958 S.W.2d 430 (Ct Ap TX Fort Worth 1997)

Oil company loses with jury but wins with appeal court on issue that company caused alleged contamination of groundwater. A key factor in the reversal is given at pages 446-447: "Dr. Bassett would not say, however, that Mitchell's wells were a 'probable' source of the hydrogen sulfide in appellees' water. Instead, he equivocated, stating only that the hydrogen sulfide 'certainly could have come' from Mitchell's gas wells." *Before* going to court, make sure your expert can honestly and credibly state the specific causation for good, probable and scientific reasons.

160. *Morales v State*, 11 S.W.3d 460, 2000 TX App LEXIS 1132 (Ap El Paso TX 2000)

Handwriting expert testimony.

Morgan v Compugraphic Corp., See: *Compugraphic Corp. v Morgan*

161. *Morton International v Gillespie*, 39 S.W.3d 651, 2001 Tex. App. LEXIS 272 (Ct Ap Texarkana TX 2001)

Award against manufacturer for injuries due to airbag failure in vehicular accident affirmed.

Evidence eliminated electronic sensing devices, restraint system, and motorist's position at time of impact as alternative causes, leaving delayed deployment of airbag as the most reasonable cause of her injuries. Thus the equal inference rule did not apply.

162. *Muhammad v State*, 46 S.W.3d 493, 2001 Tex. App. LEXIS 3366 (Ap El Paso TX 2001)

Conviction of murder upon plea of guilty. Reversed and remanded for new punishment trial since exclusion of psychologist's expert testimony for Defendant was abuse of discretion.

163. *Nations v State,* 894 S.W.2d 480 (Ct Ap TX Austin 1995); vacated and remanded to appeal court, 930 S.W.2d 98 (Ct Cr Ap TX 1996); reversed and remanded for new trial, 944 S.W.2d 795 (Ct Ap TX Austin 1997)

In 894 S.W.2d 480, conviction of appellant for aggravated sexual assault was affirmed, and exclusion of his expert on eyewitness identification reliability was upheld. In 930 S.W.2d 98, the Court of Criminal Appeals sent the case back, affording the Court of Appeals an opportunity to

determine the "fit" of the expert's theory to the facts of the case in light of *Jordan v State*, which had been handed down in the interim. In 944 S.W.2d 795, the Court of Appeals remands for a new trial on grounds that exclusion of the expert's testimony was not harmless error.

164. *Neal v Dow Agrosciences LLC, et al*., 74 S.W.3d 468 (TX Ap Dallas 2002)

Affirming no-evidence summary judgment for Dow in product liability suit alleging chemicals caused deceased child's brain tumor.

Citing *Jarrell*, at page 471 the Court states: "A trial judge does not abuse his discretion in excluding expert testimony when

"(I) the testimony was not based on a reliable foundation,

"(ii) no testing was conducted to exclude other possible causes,

"(iii) the expert's methodology was suspect,

"(iv) the expert's research was conducted for litigation, *or*

"(v) the expert's methodology had not been subjected to peer review or publication." [Emphasis added.]

The little "or" clearly indicates only one of the five need be ascertained as a justification for excluding the expert's testimony. However, we should note, based on what other cases say, that the words "does not abuse his discretion" are carefully chosen since no single one of these would compel the trial judge to exclude the expert's testimony.

165. *Nejnaoui v State*, 44 S.W.3d 111, 2001 Tex. App. LEXIS 1274 (Ct Ap Houston TX 2001)

Conviction for aggravated assault affirmed. Court syllabus in part states: "(2) defendant's statement to officer, '[T]hat's the gun I shot my wife with last night,' was admissible." Psychiatrist was properly excused from testifying.

166. *Nenno v State,* 970 S.W.2d 549 (Ct Cr Ap TX 1998)

Expert testimony on future dangerousness was sufficiently reliable during penalty phase of murder trial. The *Daubert* gatekeeping function applies to all expert testimony. The three appropriate questions for the "nonscientific" are given above in Sub-section A of the Introduction. In fact, the case report gives nothing concrete supporting reliability, while it records appellant's contention that all six *Kelly* factors were not met. Indeed, at page 562 it states: "[The expert] did not contend that he had a particular methodology for determining future dangerousness." He could just do it, having examined in excess of a thousand cases. All in all, his theoretical underpinnings were like the last pea on the plate; one will never corner it or pin it down with a fork. While bringing all expertise under the umbrella of *Kelly*, *Nenno* may have inadvertently shredded the cloth of that umbrella.

167. *Nissan Motor Co., Ltd., v Armstrong*, 32 S.W.3d 701, 2000 Tex. App. LEXIS 6390 (Ct Ap TX Houston 2000); reversed and remanded for new trial, 145 S.W.3d 131, 2004 Tex. LEXIS 737, 47 Tex. Sup. J. 955, CCH Prod. Liab. Rep. P17,123 (TX 2004)

32 S.W.3d 701:

Damages in products liability for stuck throttle in vehicular accident affirmed. Jury adopted mechanical engineer's opinion that a manufacturing defect caused dust boot to deteriorate after 6 years and 93,000 miles.

145 S.W.3d 131:

Supreme Court reversed for a plethora of reasons that are well thought out. However, it gave no thought that the decision it reversed was a logical and valid application of the Supreme Court's "analytical gap" thesis from *Gammill*. It only pointed out that in *Gammill* the properly excluded expert was a licensed engineer who worked on cars but never designed them, so could not talk of design defects. Equally, one would guess, a stair engineer who worked on them and used them could never say whether residential stairs with a six-inch tread and two-foot rise were badly designed. That

point and another seem to be the only flaws in an otherwise excellently thought out decision. The other point, in speaking of causes of rapid acceleration, was: "Not only are there many potential causes (from floor mats to cruise control), but one of the most frequent causes (inadvertently stepping on the wrong pedal) is untraceable and unknown to the person who did it." If it is untraceable, how did the Supreme Court trace inadvertent stepping on the wrong pedal as "one of the most frequent" and know that it is so when it was unknown to the sole witness of the events inside the vehicle, the driver? One suspects the Court unwittingly adopted the car manufacturers' preference for the one hypothetical explanation most exonerating of themselves.

It is suggested that this case is a crisply stated, succinct and, surely, an authoritative compendium of many factors affecting expert testimony.

168. *North Dallas Diagnostic Center v Dewberry,* 900 S.W.2d 90 (Ct Ap TX Dallas 1995)

The syllabus states that the "trial court erred reversibly by allowing plaintiff's expert to testify on causation without showing that expert's opinion was based on valid and well-founded scientific knowledge." Appellee/plaintiff had been injected with a contrast dye for a CT scan, contrary to her doctor's orders and with immediately harmful results, which, however, were not sufficient to sustain the verdict.

After saying a *Daubert* process should be used in the trial court's gatekeeping function, in what may have been the judicial understatement of the 20th Century, at page 96 the Court says that such *voir dire* of an expert "may involve more time and expense in the litigation process."

169. *Nunley v Kloehn*, 888 F.Supp. 1483 (E. D. WI 1995)

Quoted by *Broders, et al., v Heise*, 924 S.W.2d 148 (TX 1996), at page 153, to the effect that the focus in qualifying an expert ought to be on the specific fit to the subject matter at issue rather than on a comparison with a competing expert.

170. *Ochoa v State,* 994 S.W.2d 283 (Ct Ap TX El Paso 1999)

Radar evidence of speed subject to standards for admitting scientific evidence.

171. *Ocomen v Rubio*, 24 S.W.3d 461, 2000 Tex. App. LEXIS 3782 (Ct Ap TX Houston 2000)

Judgment for defendant doctor in medical malpractice affirmed.

172. *Olin Corp. v Smith,* 990 S.W.2d 789 (Ct Ap TX 1999)

Pistol ammunition malfunction, due to "hangfire," whereby it fires as much as 1.5 seconds after trigger is pulled, claimed to have caused pistol to fire late and injure hunter.

173. *In re Paoli Railroad Yard PCB Litigation,* 706 F.Supp. 358 (E.D. PA 1988); reversed and remanded, 916 F.2d 829 (3 Cir 1990); on remand, 811 F.Supp. 1071 (E.D. PA 1992); affirmed in part and reversed in part, 35 F.3d 717 (3 Cir 1994)

Medical evidence was offered regarding toxic chemicals. The case is cited by *du Pont* regarding expert testimony as to causality. Between them, the two Court of Appeals reports, 916 F.2d 829 and 35 F.3d 717, cover most aspects of admissibility of expert evidence and expert testimony as to causality. In synopsis, some of these points are:

- Trial court may not exclude an expert merely for lack of particular degrees or training.
- An expert's *report* may not be excluded as unreliable for lack of peer-review.
- Experts in the relevant discipline, not the trial judge, determine what is unreliable.
- In what seems to contradict the above point, the judge, not the expert, determines what is reasonable reliance. Whether experts in the particular field consider it so is just one factor. The apparent contradiction can be resolved by distinguishing between reliability within the discipline as *scientifically* dispositive and reliability as a *legal* determination for helpfulness in court.
- The 'knowledge, skill, experience, training, or education' which qualify an expert can be of various kinds.

• The liberal policy of admissibility of expert witnesses extends to the substantive opinion as well as to the formal qualifications.

• The trial court is to consider any factor which is relevant to the scientific reliability of the expert's techniques.

• Scientific fit of the expert evidence in the case extends to each step in the expert's analysis and to everything connecting the expert's work to the particular case.

• At an *in limine* hearing on reliability, such need be shown only by a preponderance of the evidence; the case itself need not be proved once for the judge and a second time for the jury.

• The summary judgment test of expert testimony is whether a reasonable person could believe it.

• The grounds of reliability for an expert's opinion merely need be good, not perfect.

• If any step of the expert's analysis is unreliable, it renders the entire testimony unreliable and thus inadmissible. This may be because a step in the analysis rendered a reliable methodology unreliable or misapplied a reliable methodology.

• Disagreement between experts does not equate to unreliability.

• Any flaw in the expert's investigative process must be such that there are no longer good grounds for the conclusions before the testimony is to be considered inadmissible.

• A judge's general belief that the jury will be confused and overwhelmed is insufficient, but there must be something particularly confusing and overwhelming.

• An expert may testify as long as there is not a significant reliance on unreliable data. Any reliance on excluded data must not change the expert's conclusion.

Other cases have made similar rulings, as *Claar, et al., v Burlington Northern Railroad Co., Eggar, et al., v Burlington Northern Railroad Co.*, 29 F.3d 499 (9 Cir 1994), where opinions of Plaintiff experts were properly ruled inadmissible by the trial court because in their affidavits, among other failures, they did not try to rule out other possible causes.

174. *Parish v State,* 145 Tex.Crim.Rep. 117, 165 S.W.2d 748 (Ct Cr Ap 1942)

In a conviction for swindling, the state's handwriting expert had no formal training and knew of none, but that went to weight not admissibility.

175. *Park v Larison and Boles*, 28 S.W.3d 106, 2000 Tex. App. LEXIS 9393 (Ct Ap TX Texarkana 2000)

In action for personal injury in vehicle accident, judgment for defendants upheld. Human factors engineer offered nothing beyond ability of jury to understand.

176. *Parmer v State*, 38 S.W.3d 661, 2000 TX App LEXIS 8013 (Ap Austin TX 2000)

Handwriting expert testimony.

177. *Pegasus Energy Group, Inc., v Cheyenne Petroleum Co.*, 3 S.W.3d 112 (TX Ap Corpus Christi 1999)

Exclusion of the testimony of an expert in oil and gas audits and accounting as giving an improper legal opinion.

178. *People v Stapleton*, 4 Ill.App. 477, 281 N.E.2d 76 (1972)

Handwriting expert's knowledge and applied skill was nothing above the ordinary lay person's.

179. *Perez v State,* 925 S.W.2d 324 (Ct Ap TX Corpus Christi 1996)

A stepfather was convicted of molesting his step-daughter. A counselor had interviewed the child using anatomically correct dolls. It was held not to be scientific evidence, but testimony of a one-to-one interview using an established procedure.

180. *Perez v State*, 25 S.W.3d 830, 2000 Tex. App. LEXIS 4970 (Ct Ap TX Houston 2000)

Conviction for aggravated sexual assault of child reversed and remanded. State expert not

qualified on theory of "child abuse accommodation syndrome" and admission was not harmless error. The report is a nice example in how an appeal court might study each *Kelly* factor in turn to arrive at its decision. Where the record was silent on a factor, it weighed against the party with the burden.

181. *Perkins v State,* 902 S.W.2d 88 (Ct Ap TX El Paso 1995)

Conviction for aggravated sexual assault on a child. Polygraph evidence is held to be *per se* inadmissible.

182. *Peters v State*, 31 S.W.3d 704, 2000 Tex. App. LEXIS 6896 (Ct Ap Houston TX 2000)

Reversing and remanding penalty phase after guilty plea to sexual assault of granddaughter.

At page 707 prosecutor asks Dr. Cole, defense expert psychiatrist, if there was "a 100% way to control their [sex offenders'] behavior or to keep them from doing it again." Answer was, "No," which was used to argue to jury for prison sentence, while expert testimony, that statistics show treated incest offenders have lowest rate of recidivism (2%) and untreated imprisoned sex offenders have the highest, was incorrectly ruled inadmissible by the trial court.

183. *Pierce v State,* murder conviction remanded, 604 S.W.2d 185 (Ct Cr Ap TX 1980); reversed and remanded, 696 S.W.2d 899 (Ct Cr Ap TX 1985); affirmed, 777 S.W.2d 399 (Ct Cr Ap TX 1989); cert. denied, 496 US 912, 110 S.Ct. 2603, 110 L.Ed.2d 283 (1990)

In a conviction of capital murder, "Architect's reconstruction of lineup and expert testimony concerning unreliability of eyewitness testimony were properly excluded."

184. *Piro, et al., v Sarofim; Sarofim v Piro, et al.,* 80 S.W.3d 717, 2002 Tex. App. LEXIS 4622 (Ct Ap Houston TX 2002)

Affirming $3,000,000 award to former client who sued lawyers for breach of fiduciary duty.

185. *Pittsburgh Corning Corp. v Walters,* 1 S.W.3d 759 (Ct Ap TX Corpus Christi 1999)

In wrongful death suit against asbestos manufacturer, mesothelioma was the cause of death.

At page 773, the Court of Appeals rejects appellant's argument that to have expert knowledge on asbestos hazard to a bystander "would require education, training, or experience in industrial hygiene, occupational medicine, or some similar field. Rule 702 does not prescribe such a narrow field."

186. *Puderbaugh v State*, 31 S.W.3d 683, 2000 Tex. App. LEXIS 7645 (Ct Ap Beaumont TX 2000)

Conviction for felony sexual assault on child under fourteen affirmed.

187. *Purina Mills, Inc., v Odell,* 948 S.W.2d 927 (Ct Ap TX Texarkana 1997)

In product liability suit alleging metal in cow feed, expert veterinary testimony lacked reliable foundation. This case may be every attorneys' good friend, as it gives support for pairs of contrary propositions on expert testimony, such as:

1. At page 934: Neither of plaintiff's experts "conducted tests to exclude other potential causes;" while the fact that research, testimony and opinion were formed for purposes of litigation are not thus "automatically suspect," but they are more likely to be biased.

2. Having been taken to task for not excluding other potential causes (those which are merely possible), at page 936 it is said: "Nor must the plaintiff exclude every other possibility," (those which are merely potential causes).

3. At page 934: Neither expert "conducted a methodological or technical study of all the cattle or representative samples of the feed," a thing required only for proof beyond a reasonable doubt; while at page 936 it is said: "Absolute certainty is not required."

One could work up other pairs of contrary rulings amounting to a series of judicial Catch 22 situations.

188. *Ramirez v State,* 815 S.W.2d 636 (Ct Cr Ap TX 1991)

Conviction of capital murder reversed and remanded. Questioning of defense psychological expert, which revealed the results of "unknown" studies and of another study, was improper cross-examination.

At page 651: "Pursuant to Rule 610 and case law, an expert witness may be impeached by an opposing party's use of generally inadmissible hearsay evidence.... Before the material may be used for impeachment purposes during cross-examination, however, the impeaching party must establish the material as a recognized authority in the particular field of expertise." The latter can be done by such means as the testimony of one's own or opposing expert, or by showing that appeal and supreme courts have cited the work.

189. *Reese v Duncan*, 80 S.W.3d 650, 2002 TX App LEXIS 4149 (Ap Dallas TX 2002)

Handwriting expert testimony.

190. *Rehabilitative Care Systems of America v Davis*, 43 S.W.3d 649, 2001 Tex. App. LEXIS 1968 (Ct Ap Texarkana TX 2001); petition for review denied, 73 S.W.3d 233, 2002 Tex. LEXIS 35, 45 Tex. Sup. J. 521 (TX 2002)

Affirming recovery for injuries caused by malfunction of workout machine.

191. *Reid v State,* 964 S.W.2d 723 (Ct Ap TX Amarillo 1998)

In a murder conviction, the Court of Appeals held that the "standard for admissibility of scientific expert testimony on Munchausen Syndrome by Proxy (MSBP) was satisfied...."

192. *Ricciardi v Children's Hospital Medical Center, et al.,* 811 F.2d 18 (1 Cir 1987)

Affirming directed verdict in medical malpractice suit. Doctor's handwritten notes were held "not admissible under 'business records' exception to hearsay rule."

193. *Riddick v Quail Harbor Condominium Association, Inc.*, 7 S.W.3d 663 (TX Ap Houston 1999)

Suit over damage to a unit due to shifting of foundation on shifting soil. Negligence by neither party and no liability by defendant/appellee were found.

194. *Roberson v State*, 16 S.W.3d 156, 2000 Tex. App. LEXIS 2390 (TX Ap Austin 2000)

Conviction for aggravated sexual assault with life sentence affirmed.

At the start of page 169, after having discussed another similar Texas case, the Court states: "Except for *Williams,* our holding in the instant case borders on being one of first impression with regard to DNA evidence establishing identity. We therefore have examined cases from other jurisdictions to see if they support our conclusion." After this extensive discussion, it states at page 171: "Finding our conclusion in general accord with other states' cases, we overrule appellant's first point of error challenging the legal sufficiency of the evidence." Footnote 14 says: "Caution is advised. Each case based on properly analyzed DNA evidence must stand on its own merits. Other admissible identity evidence should not be disregarded."

195. *Roise v State*, 7 S.W.3d 225 (TX Ap Austin 1999)

Conviction for possession of child pornography affirmed.

There is a fairly extensive discussion of the modern development of guidelines for admissibility of expert evidence with comparison of Federal and Texas practice.

196. *Rousseau v State,* 824 S.W.2d 579 (Ct Cr Ap TX); affirmed, 855 S.W.2d 666 (Ct Cr Ap 1993); cert. denied, 510 US 919, 126 L.Ed.2d 260, 1993 US Lexis 6411, 114 S.Ct. 313 (1993)

Conviction for capital murder affirmed.

Citing *Pierce v State*, expert witness on eyewitness reliability in this case, as in that case, was not helpful. The witness failed to fit his testimony to the evidence, had not examined any eyewitness for either side, did not say whether the factors he would discuss would apply to any eyewitness and, if applicable, would undermine testimony of any eyewitness.

197. *Royal Indemnity Co., et al., v Little Joe's Catfish Inn, Inc., et al.,* 636 S.W.2d 530 (Ct Ap TX San Antonio 1982)

In suit over insurance coverage for fire damage, "admission of insurance adjuster's expert testimony regarding statement of damage caused to building involved was not error...."

198. *S. V. v R. V.,* 935 S.W.2d 1 (TX 1996)

Evidence of recovered memory of childhood sexual abuse is not admissible.

199. *Sattiewhite v State,* 786 S.W.2d 271 (Cr Ap TX 1989); cert den, 498 US 881 (1990)

Murder case in which punishment was death. Defense expert, a psychologist, was properly not permitted to testify that life imprisonment rather than the death penalty should be assessed.

200. *SBC Operations, Inc., v The Business Equation, Inc.*, 75 S.W.3d 462, 2001 Tex. App. LEXIS 8358 (TX Ap San Antonio 2001)

Judgment for subcontractor in action for breach of contract and fraud reversed. SBC had canceled an oral agreement for a three-year promotional program after a test launch.

201. *Schaefer v Texas Employers' Insurance Association,* 598 S.W.2d 924 (Ct Civ Ap Eastland); affirmed, 612 S.W.2d 199 (TX 1980)

At page 202 the Supreme Court says: "In the absence of reasonable probability, the inference of causation amounts to no more than conjecture or speculation." Then, after saying that "an expert need not use the magic words," the Court states: "The substance of the testimony, not its form, is determinative."

At page 203 it is said of the expert medical evidence: "[T]here is a crucial deficiency in the proof of causation. The evidence fails to establish that any bacteria was present in the soil where Schaefer worked." One can say that this is equivalent to handwriting experts who say "range of variation" without establishing that the particular variation in question "was present in the soil" of the suspect's handwriting. What is not demonstrated in court before the fact finder has not been proved.

202. *Schindler Elevator Corp. v Anderson*, 78 S.W.3d 392, 2002 Tex. App. LEXIS 2497 (TX Ap Houston 2002); judgment vacated without reference to the merits, remanded, 2003 Tex. LEXIS 68 (TX 2003)

Expert witness had extensive experience with escalators and how a person's foot could be caught.

203. *Sciarrilla v Osborne,* 946 S.W.2d 919 (Ct Ap TX Beaumont 1997)

Testimony of expert in traffic accident reconstruction was admissible.

204. *Sears, Roebuck & Co., et al., v Kunze,* 996 S.W.2d 416 (Ct Ap TX Beaumont 1999)

Plaintiff lost fingers to a used radial saw and sued for product liability. Test which plaintiff expert performed was inadmissible.

205. *Sexton v State*, 12 S.W.3d 517 (TX Ap San Antonio 1999); reversed and remanded, 93 S.W.3d 96, 2002 Tex Crim. App. LEXIS 194 (TX Ct Cr Ap 2002); reversed and remanded for new trial, 2003 Tex. App. LEXIS 6724 (TX Ap San Antonio 2003)

Conviction for three counts of aggravated assault affirmed. "The three victims had each been shot while sitting in a car at a stop sign." Police ballistics expert matched casings found at the scene with casings found in defendant's bedroom.

At page 519, after listing usual seven factors testing reliability of expert opinions: "This list of factors is by no means exhaustive, and the ultimate inquiry into reliability is flexible." The Court of Criminal Appeals said the expert was qualified and could explain his theory with clarity, but all other *Kelly* factors weighed in favor of exclusion.

206. *Slagle v State,* 570 S.W.2d 916 (Ct Cr Ap TX 1978)

In a DUI conviction, the scientific reliability of the breathalyser test need not be proved, since it is admissible by statute.

207. *Sloan v Molandes, et al.*, 32 S.W.3d 745, 2000 Tex. App. LEXIS 8064 (Ct Ap Beaumont TX 2000)

Verdict for patient affirmed in medical malpractice suit for developing pancreatitis from high doses of steroid Prednisone.

208. *Smith v State,* 850 S.W.2d 275 (TX Ct Ap 1993)

In conviction for aggravated sexual assault, the court properly excluded expert evidence that victim had AIDS prior to the rape while defendant did not. Apparently the contention was that defendant would have also contracted AIDS if he had sexually assaulted her.

209. *Smith v State*, 65 S.W.3d 332, 2001 Tex. App. LEXIS 8149 (Ct Ap Waco TX 2001)

Affirming conviction of driving while intoxicated.

Defense failed to show that attorney, who was to testify to significant error by intoxilyzer machine, was qualified expert with special knowledge of how it worked or with science and math background to explain to jury why there would be a variance. But why not just offer him as a percipient witness to machine's unreliable performance or demand production of machine used on Defendant and have its reliability tested?

210. *Sorensen v. Shaklee Corp.,* 31 F.3d 499 (9th Cir. 1994)

Quoted by *E.I. du Pont de Nemours & Co., Inc., v Robinson*, at 923 S.W.2d 549, page 559, regarding reasoning *a priori* to one cause when several could have produced one effect.

211. *Southland Lloyd's Insurance Co., et al., v Tomberlain, et al.,* 919 S.W.2d 822 (Ct Ap TX 1996)

In action on insurance fire claim, "trial court committed reversible error in refusing to allow state-approved insurance instructor to testify as expert on agent's standard of care."

212. *Star Enterprises, et al., v Marze, et al.*, 61 S.W.3d 449, 2001 Tex. App. LEXIS 2792 (Ct Ap San Antonio TX 2001)

In premises liability action and wrongful death claim, jury verdict in favor of Plaintiffs affirmed. Truck driver fell and injured knee while at weight station. Subsequent surgery lead to infection and death.

213. *State v Northborough Center, Inc., et al.,* 987 S.W.2d 187 (Ct Ap TX Houston 1999)

Expert in land planning improperly barred from testifying on issue of value of property taken by eminent domain to widen a highway. He need not have license in applicable fields of engineering, architecture or landscape architecture.

214. *State Farm Fire and Casualty Co. v Rodriguez*, 88 S.W.3d 313, 2002 Tex. App. LEXIS 5173 (Ct Ap San Antonio TX 2002); rehearing denied, 2003 Tex. App. LEXIS 144 (Ct Ap San Antonio TX 2003)

Affirming damages to home owner for loss caused by plumbing leak.

215. *State Farm Lloyds v Mireles*, 63 S.W.3d 491, 2001 Tex. App. LEXIS 5318 (Ct Ap San Antonio TX 2001)

Jury verdict in favor of insureds for damage from plumbing leak reversed and judgment rendered in favor of insurer. Opinion of engineer that plumbing leak caused foundation to heave was unreliable and irrelevant.

At page 494 the case exhibits more of the contradictions generated by *Gammill*, quoting its ruling that "in some instances, the expert's skill and experience may support a finding that his testimony is reliable and relevant," and then its ruling that the say-so of the expert will not suffice. Appeal by an expert to his experience and skill is precisely an appeal to his own say-so. However,

this case happily required that similar cases from his experience be spelled out, which he could not do. At page 499: "Certainly, if he is primarily depending on his experience to support his opinion, he would have to have seen it more than once." Concrete facts, and not personal authority, were required of the witness. *Gammill*'s amorphous "analytical gap" was thus given some substance. Some handwriting experts have shown how to handle that challenge, because they assert they have seen many examples of whatever similar instance their employer's case requires. It is a safe assertion since the experience can be neither documented nor contradicted.

This is one of the few points where I agree with the anti-expert experts. They have pointed out that, only if the expert can demonstrate and explain how his experience provides a reliable basis for the opinion, should experience serve as such basis.

State of Texas as Defendant or Appellee, see the following cases:

[There will be here an index by appellant to all cases where State of Texas is appellee.]

END CROSS ENTRIES FOR STATE OF TEXAS.

216. *Steinkamp v Caremark*, 3 S.W.3d 191 (TX Ap El Paso 1999)

Issue was whether a nurse negligently broke off catheter in patient's arm resulting in medical complications.

To establish medical negligence, four elements must be proved:

1. legal duty to act according to an applicable standard of care;
2. a breach of such standard;
3. an injury
4. which was caused by such breach.

The causality must be shown by expert testimony within a reasonable medical probability.

217. *Stokes v State*, 853 S.W.2d 227 (Ct Ap TX Tyler 1993)

Handwriting expert testimony.

218. *Strong v State*, 805 S.W.2d 478 (TX Ap Tyler 1990)

Conviction of engaging in organized criminal activity, after joint jury trial with seven codefendants, affirmed. An expert witness could not identify writer of tabs on a notebook, but the jury could legally make its own comparison.

219. *Sunsinger v Perez, et al.*, 16 S.W.3d 496, 2000 Tex. App. LEXIS 2352 (TX Ap Beaumont 2000)

Summary judgment for defendant doctor in medical malpractice affirmed.

220. *Swearingen v State*, 101 S.W.3d 89, 2003 TX Crim App LEXIS 65 (Ct Cr Ap TX 2003)

Handwriting expert testimony.

221. *Tarrant Regional Water District v Gragg, et al.*, 43 S.W.3d 609 , 2001 Tex. App. LEXIS 1901 (Ct Ap Waco TX 2001); affirmed, 151 S.W.3d 546, 2004 Tex LEXIS 590, 47 Tex. Sup. J. 707 (TX 2004)

Inverse condemnation action to recover for flood damage due to construction of reservoir.

The case report gives in detail both the challenge Appellant made against Appellees' expert hydrologists regarding the seven *Robinson* factors and the Court's findings as to how the factors were satisfied. Thus it could serve as a model for formulating a challenge and for replying to one.

222. *Texas Workers' Compensation Insurance Fund v Lopez*, 21 S.W.3d 358 (TX Ap San Antonio 2000)

Jury finding "that claimant sustained chronic obstructive pulmonary disease (COPD) in the course and scope of his employment as a sandblaster" was affirmed.

This case systematically shows how the expert evidence met the several *du Pont* factors. It is summarized as an illustration of a game plan one can adopt at trial so as to leave nothing to chance.

1. Theory tested: A medical article attached to Lopez's brief reviewed several studies from various countries on effect of occupational dust on lung function. So the theory his expert applied had been tested. An epidemiological study was also included.

2. Subjective interpretation by expert: Medical data used was objectively obtained, and the theory did not rely on subjective interpretation. Studies of the effect of dust on gold miners was apparently viewed by the court as about occupational dust, not just gold mine dust. Protective clothing Lopez was given was proven inadequate and had subsequently been replaced, so in effect the company had made its own objective interpretation. Also, evidence from the Fund's expert gave credence to Lopez's theory.

3. Peer Review, publication and acceptance in the applicable discipline: The publications submitted had demonstrated all three.

4. Potential rate of error: "The confidence level of the studies cited by Lopez is 95%, within the acceptable range required under *Havner*." Unlike *Havner*, here there was no contrary epidemiological data, so a lower confidence level was acceptable. "In the present case, the scientific evidence is overwhelmingly in favor of Lopez's proposition."

5. Non-judicial use: The theory had been used to develop more protective clothing and to formulate federal regulations.

6. Specific causation: All the above established general causation, that occupational dust can cause COPD. Evidence from the expert, claimant and a co-worker combined to provide sufficient evidence of specific causation, that dust from sandblasting caused Lopez's COPD.

223. *Thompson v Mayes,* 707 S.W.2d 951 (Ct Ap TX 1986)

"Action was brought to impose constructive trust on devised assets of devisee who killed devisor...; expert testimony concerning 'psychological autopsy' of devisee just before suicide was not admissible."

224. *Tomasi v Liao, et al*., 63 S.W.3d 62, 2001 Tex. App. LEXIS 169 (Ct Ap San Antonio TX 2001)

Affirming dismissal of medical negligence action.

"Psychiatrist who filed expert report failed to establish he was qualified to render opinion as to standard of care applicable to postoperative care following neurosurgery." He failed to state extent of his experience on hospital's peer review committee and how such experience related to postoperative care following neurosurgery.

225. *Torrington Co. v Stutzman*, 46 S.W.3d 829, 2000 Tex. LEXIS 109, 44 Tex. Sup. J. 225, CCH Prod. Liab. Rep P16,084 (TX 2000)

Verdict in wrongful death suit against bearing manufacturer in crash of Navy helicopter affirmed in part; reversed and remanded in part.

At page 844, to recover in strict liability for a manufacturing defect, plaintiffs had to show:

• product was defective when sold; and

• defect was a producing cause of plaintiffs' injuries.

"A product has a manufacturing defect if its construction or quality deviates from the specifications or planned output in a way that is unreasonably dangerous."

226. *Trimboli v State,* 817 S.W.2d 785 (Ct Ap TX Waco 1991); affirmed, 825 S.W.2d 953 (Ct Cr Ap TX 1992)

A triple murder conviction in which "DNA fingerprinting evidence was properly received."

The Court of Appeals at 817 S.W.2d 785, page 790, quotes an article regarding the relevancy versus the general acceptance test: "Eliminating the general acceptance test does not make scientific evidence automatically admissible on the say-so of a single expert." Consensus within the scientific community may bear heavily in a particular case. Eleven factors that may be taken into account are

given at pages 790-791. In summary they are:

1. Potential rate of error.
2. Standards for use.
3. Safeguards for the technique.
4. Analogy to admissible scientific techniques.
5. Acceptance within the field.
6. The nature and breadth of the inference adduced.
7. Clarity and simplicity of explanation.
8. Verifiability by fact finder.
9. Other experts available.
10. Probative significance within case.
11. The care with which the technique was employed in the case.

"These factors require examination of the characteristics of the evidence, the foundation of the proffer, and the context of the proffer." Then: "[R]ejecting the *Frye* standard does not automatically signal abandonment of caution."

227. *Turner v State,* 636 S.W.2d 189 (Ct Cr Ap TX 1982)

In prosecution for false medicaid claims, testimony of handwriting expert with other evidence supported conviction beyond a reasonable doubt.

228. *Turner v State,* 886 S.W.2d 859 (TX Ct Ap 1994)

Murder conviction in which DNA evidence was admitted.

229. *Turro v State*, 950 S.W.2d at 400

Cited by *Arzaga v State*, 86 S.W.3d 767 (TX Ap El Paso) on the issue of bolstering.

230. *Uniroyal Goodrich Tire Co. v Martinez*, 977 S.W.2d 328, 334, 42 Tex. Sup. J. 43 (TX 1998)

Authority on the four points that support a no-evidence point of error.

231. *Union Carbide Corp. v Mayfield*, 66 S.W.3d 354, 2001 Tex. App. LEXIS 6082, Am. Disabilities Cas. (BNA) 1700 (TX Ap Corpus Christi 2001)

Jury verdict in favor of employee alleging disability discrimination reversed and rendered.

Rehabilitation counselor was qualified to testify, but flatfootedness did not constitute disability.

232. *United States v Bourgeois and Crowe*, 950 F.2d 980 (5 Cir 1992)

Graphoanalyst was not permitted to testify as handwriting expert. The same graphoanalyst was properly permitted to testify as a handwriting expert in *First Coppell Bank v Smith.*

233. *United States v Currier*, 454 F.2d 835 (1 Cir 1972)

Although the handwriting expert could not say Defendant wrote the erased words, the jury could believe so.

234. *United States v Jones,* 880 F.Supp. 1027 (E.D. TN 1995), 1997 US Ap LEXIS 3696, 1997 Fed Ap 0082p, 107 F.3d 1147 (6 Cir 1997); certiorari denied, 117 S.Ct. 2527 (1997)

A case of handwriting expertise in credit card fraud prosecution.

235. *United States v Starzecpyzel,* 880 F.Supp. 1027 (S Dist NY 1995)

A *Daubert* hearing on handwriting expertise finds that the certification chairperson for American Board of Forensic Document Examiners and one of their majority grandfathered members are merely practicing a technical skill which would be junk science if it were a science. At page 1028: "The *Daubert* hearing established that forensic document examination, which clothes itself with the trappings of science, does not rest on carefully articulated postulates, does not employ rigorous methodology, and has not convincingly documented the accuracy of its determinations. The Court might well have concluded that forensic documents examination constitutes precisely the sort of junk science that *Daubert* addressed." For a contrasting finding see the *Velasquez* case, and for a

demonstration of how handwriting expertise can triumph in a *Daubert* hearing see Section IX.

236. *United States of America; Government of the Virgin Islands v Velasquez,* 64 F.2d 844, 33 Virgin Is. 265 (3 Cir 1995)

In a drug trafficking case, a handwriting expert, Lynn Bonjour, was opposed by one of a group of anti-experts on handwriting expertise, Professor Denbeaux. Lest anyone should think justices are without a droll sense of humor, in a footnote at page 279 the Court quotes Ms. Bonjour's estimate of Professor Denbeaux's article co-authored with two others: "Ms. Bonjour acknowledged that she had read Professor Denbeaux's law review article, although her critique—'it's a lot of gibberish'—was less than glowing."

237. *Vasquez v State,* 975 S.W.2d 415 (Ct Ap TX 1998)

Conviction for sexual assault on child. Expert testimony on behavioristic characteristics of child victims was admissible. Expert testimony on witness' truthfulness and on statement analysis were admissible only on rebuttal of contrary attacks by defense.

238. *Viterbo et ux. v Dow Chemical Co.,* 646 F.Supp. 1420 (E.D. TX 1986); affirmed, 826 F.2d 420 (5 Cir 1987)

In an action claiming that exposure to chemicals damaged plaintiff physically and psychologically, his expert evidence was rejected as unfounded and subjective.

239. *Wade, et al., v Galveston, H. & S. A. Ry. Co.*, 110 S.W. 84 (TX Civ Ap 1908)

One of several Texas cases known to the authors which apply the *post litem motam* rule for handwriting exemplars. In this instance a witness who denied his signature should not have been permitted to write comparison signatures on direct examination.

240. *Wal-Mart Stores, Inc., v Garcia,* 974 S.W.2d 83 (Ct Ap TX San Antonio 1998)

In suit by shopper for injury from falling sign, an engineer's expert testimony on force of impact and work safety rules was admissible.

241. *Waltrip v Bilbon Corp.*, 38 S.W.3d 873, 2001 Tex. App. LEXIS 1801 (Ct Ap Beaumont TX 2001)

In appeal from verdict in action over vehicular accident award of only $100 for pain and suffering affirmed.

242. *Waring v Wommack,* 945 S.W.2d 889 (Ct Ap TX Austin 1997)

In a suit by a bicyclist against the motorist who hit him, "expert testimony of accident reconstruction expert was properly admitted."

243. *Warren, et al., v Hartnett, et al.,* 561 S.W.2d 860 (TX Ap 1978)

In holographic will contest, handwriting expert testimony as to lack of mental capacity due to alcoholism was without probative value.

244. *Weatherred v State,* conviction reversed and remanded, 833 S.W.2d 341 (Ct Ap TX Beaumont 1992); second conviction reversed and remanded, 963 S.W.2d 115 (Ct Ap TX Beaumont 1998; remanded, 975 S.W.2d 323 (Ct Cr Ap TX); reversed and remanded, 985 S.W.2d 234 (Ct Ap TX Beaumont 1999); reversed and remanded, 15 S.W.3d 540 (TX Cr Ap 2000)

In first capital murder conviction, jury erroneously was refused the entirety of a taped conversation it had requested. In the second conviction, defense expert on photo bias and eyewitness misidentification was erroneously refused.

In the second appeal the expert on eyewitness identification was sufficiently familiar with enough facts in the case to be relevant, had testified to scientific reliability, and had produced copies of journal papers, among other materials.

The Court of Criminal Appeals sent it back to the Court of Appeals to reassess admissibility of the expert evidence. The latter's reaction, at page 236 should comfort all us laypersons and the few

attorneys who find clarification by courts of appeal to be at times more confusing than clarifying: "We must admit that we are puzzled by the Court's directive to engage in this analysis as the holding in *Nenno*, unless we are entirely misreading it, appears to *lessen* the scrutiny in examining scientific evidence for the *Kelly* factors on relevance and reliability." They then quote the passage on evaluating other than "hard sciences" from *Nenno v State*, 970 S.W.2d 549, 561, part of which is: "The appropriate questions are: (1) whether the field of expertise is a legitimate one, (2) whether the subject matter of the expert's testimony is within the scope of that field, and (3) whether the expert's testimony properly relies upon and/or utilizes the principles involved in the field." Factors of "potential rate of error" and "peer review" may be inappropriate for fields outside of the "hard sciences." We suggest covering all factors you can possibly cover, preempting any and every excuse to exclude your expert evidence, whether of a hard or soft science.

At the review reported in 15 S.W.3d 540, the Court of Criminal Appeals ruled that defendant's eyewitness reliability expert was excludable since the trial court had only his word that research was done, neither producing nor naming any. At page 542 the Court states: "In addition, the appellate court must review the trial court's ruling in light of what was before the trial court at the time the ruling was made." Proof that proffered expert evidence is relevant and reliable must be clear and convincing. "Appellant attempted to carry this considerable burden, at the critical time, by simply offering Deffenbacher's testimony and nothing else."

245. *Webster v State*, 26 S.W.3d 717, 2000 Tex. App. LEXIS 5390 (Ct Ap TX Waco 2000)

Conviction for felony driving while intoxicated affirmed. Horizontal gaze nystagmus cannot be correlated to precise blood alcohol level. Court of Appeals takes judicial notice of entirety of relevant publications by National Highway Traffic Safety Administration even though parties did not provide complete copies on appeal.

246. *Weidner v Sanchez*, 14 S.W.3d 353, 2000 Tex. App. LEXIS 1089 (TX Ap Houston 2000)

Affirming award to passenger injured in taxi cab accident. It offers an extended discussion on causation.

247. *Williams v State,* 850 S.W.2d 784 (Ct Ap TX Houston 1993); affirmed, 895 S.W.2d 363 (Ct Cr Ap TX 1994)

Defendant was convicted of telephone harassment. It was not abuse of discretion to exclude, at guilt stage, expert psychologist's testimony that defendant was not personality type to commit crime of telephone harassment. Lay persons make such assessments every day.

248. *Williams v State,* 936 S.W.2d 399 (Ct Ap TX Fort Worth 1997)

In a prosecution for possession with intent to deliver a controlled substance, the testimony of expert chemist was admissible.

249. *Wilson v State,* 854 S.W.2d 270 (TX Ct Ap 1993)

A field test for cocaine was not offered as scientific evidence but to show the chain of custody, and thus it was not subject to the *Kelly* guidelines.

250. *Winston v State*, 78 S.W.3d 522, 2002 Tex. App. LEXIS 2314 (TX Ap Houston 2002)

Conviction for burglary of a habitation affirmed. Two bloodhounds proven reliable in "scent lineup."

In a "scent lineup" a clean gauze is wiped at the scene of the crime and placed in a sealed plastic bag. The scent of the suspect and four others are taken in the same way. In a blind test the dog sniffs the gauze from the scene of the crime and must pick out the correct suspect. In *Winston* two bloodhounds made the exact same "find."

At page 527 the Court gives the guidelines for determining the bloodhound's reliability: "Based on our review of opinions from other jurisdictions, we believe this determination turns in each case

on three factors:

"(1) the qualifications of the particular trainer,

"(2) the qualifications of the particular dog, and

"(3) the objectivity of the particular lineup."

251. *Woodlands Land Development Co., L.P., v Jenkins*, 48 S.W.3d 415, 2001 Tex. App. LEXIS 3368 (Ct Ap Beaumont TX 2001)

Suit alleging substandard qualities in new home and mental anguish. Plaintiff's three experts were a real estate inspector, a real estate broker, and a civil engineer.

Costs of repairs was affirmed, but there was reversal on mental anguish reward because Plaintiffs' testimony was conclusory and did not meet Supreme Court's requirements for proof. Though no expert evidence was involved in this issue, the report surveys ruling cases and could serve as a guide to proving such a case or defending against it.

252. *Woods v State*, 13 S.W.3d 100, 2000 Tex. App. LEXIS 533 (TX Ap Texarkana 2000)

Burglary conviction affirmed. Bolstering, in this case having several people watch video surveillance tape and form an opinion of identification, was harmless, nonconstitutional error.

253. *Yard v DaimlerChrysler Corp.*, 44 S.W.3d 238, 2000 Tex. App. LEXIS 2901 (Ct Ap TX 2001)

Affirming summary judgment for Defendant in vehicular accident alleging driver's death caused by air bag not opening. Pathologist was not qualified to give opinions related to air bag engineering or occupant kinematics.

254. *Yzaguirre v KCS Resources, Inc.*, 47 S.W.3d 532, 2000 Tex. App. LEXIS 4260. 157 Oil & Gas Rep. 835 (Ct Ap Dallas TX 2000); affirmed, 53 S.W.3d 368, 2001 Tex. LEXIS 96. 44 Tex. Sup. J. 42 (TX 2001)

Suit in oil and gas lease.

At page 542: "To establish a claim of fraudulent inducement, a party must show

"(1) a material representation which was false,

"(2) which was either known to be false when made of was made without knowledge of its truth,

"(3) which was intended to be acted upon,

"(4) which was relied upon, and

"(5) caused injury."

At pages 543-544: "The supreme court has defined market value to be the price property would bring when it is offered for sale by one who desires, but is not obligated to sell, and bought by one who is under no obligation of buying it. *See Middleton*, 613 S.W.2d at 246. Market value is calculated by using comparable sales. *See id.* Comparable sales are sales comparable in time, quality, quantity, and availability of marketing outlets...."

255. *Zimmerman v State,* 860 S.W.2d 89 (TX Cr Ap 1993); conviction vacated and remanded on other grounds, 114 S.Ct. 394, 510 US 938, 126 L.Ed.2d 324 (1993); conviction upheld on remand, 881 S.W.2d 360 (Cr Ap TX 1994)

Comparison of handwriting by an expert was sufficient proof since defendant had not denied his purported handwriting or signature under oath. If he had, the rule would have prevented the use of expert testimony. The writings in question were letters which defendant wrote while in jail before trial, one to the district attorney describing the murder.

B. INDEX TO CASES BY EXPERTISE OR TOPIC.

Reference numbers are to the numbered entries in the previous section. Though this index does not cover all issues of fact and law of any case, it will assist in finding cases which consider a particular issue or kind of expertise that one is interested in.

ABFDE, 235
accident reconstruction, 31, 75, 203, 242
accounting, 177
advocacy in expert, 123, 238
affirmative defenses, 26
aggravated assault, 165, 205
aggravated robbery, 58, 124
agronomist, 101
AIDS, 5, 208
airbag failure, 161, 253
airlines, 10
alcoholism, 243
American Board of Forensic Document Examiners, SEE: ABFDE
ammunition, 172
anesthesia, 110
anthropologist, 115
apartment complex., 119
appraisal, 55, 59
architect, 183
arson, 64
art forgery, 91
asbestos, 185
autopsy, 105, 150
ballistics, 134, 205
bearing [machinery], 225
behavioristic characteristics, 237
Bendectin, 44, 45, 155
biomechanical expert, 75
birth defects, 155
blindness, 25
blood alcohol, 98, 147, 245
blood banks, 139
blood splatter, 72
bloodhounds, 250
bodily injury, 15
bolstering, 37, 229, 252
bookmaking, 107
brain tumor, 164
brakes, 113
breach of fiduciary duty, 184
breast implants, 157
breathalyser, 103, 206, 209
burglary, 12, 19, 24, 250, 252
bus, 31
Calder mobile, 91
cancer, 146, 158
cataract operation, 13
catheter, 216
causation, 23, 60, 79, 135, 146, 157, 159, 168, 201, 222, 246
chain of custody, 249
chemicals, 38, 164, 173, 238
chemist, 28, 38, 39, 65, 118, 248
child abuse, 6, 15, 37, 52, 73, 86, 92, 111, 122, 128, 129, 179-182, 186, 198, 237
child care facility, 152
civil engineer, 251
cocaine, 28, 47, 61, 118, 144, 249
community supervision, 106
condemnation, 59, 93, 221
Condominium, 193
constitutional privilege, 82
constructive trust, 223
contractors, 36
contrast dye, 168
counselor, 87, 179
cow feed, 187
credit card fraud, 234
crop dusting, 70
cryptography, 107
CT scan, 168
deceptive trade practices, 32, 101
diesel exhaust, 158
design defect, 79
diabetic, 99
Diazinon, 142
directed verdict, 36, 120, 151, 192
disability, 230
discrimination, 230
disguised writing, 41
DNA, 21, 24, 84, 109, 127, 134, 194, 228
document examination, 235
dogs, 1, 2, 64

domestic violence, 14
drilling equipment, 20
driving while intoxicated, 56, 57, 98, 103, 147, 206, 209, 245
drug trafficker, 61, 236, 248
due diligence, 51
easement, 59
electrical wiring, 48
eminent domain, 93, 154, 213
employment relations, 10, 153
engineer, 167, 175, 215, 251
epidemiological studies, 157, 222
equal inference rule, 161
erasures, 233
escalators, 202
eyewitness reliability, 69, 163, 183, 196, 244
family violence, 8, 11, 17, 71, 149, 150
farming, 38, 54, 70, 101
Federal Employers' Liability Act, 158
fetal monitoring, 42
fingerprinting, 58, 226
fire, 20, 48, 63, 172, 197, 211, 214
flatfootedness, 230
footprint comparison, 115
forfeiture, 1, 2
foundation of home, 193, 214
fracture fixation plate, 94
fraudulent inducement, 254
fungicide, 54
future dangerousness, 112, 162, 166
future earnings, 125
Graphoanalyst, 62, 232
groundwater, 159
guardianship, 11
handwriting exemplars, 82, 239
handwriting expert, 3, 16, 41, 50, 62, 85, 137, 160, 174, 176, 178, 189, 217, 220, 227, 232-236, 239, 243, 255
hearsay, 39, 192
helicopter, 125, 225
herbicide, 38, 70
holographic will, 243
horizontal gaze nystagmus, 56, 57, 209, 245
hospital, 13, 23, 42, 135, 139, 192
human factors, 175
hydrocarbon, 64
hydrogen sulfide, 159
hydrologist, 221
Indians, 47
inferential rebuttals, 26
insurance, 63, 75, 90, 116, 138, 156, 197, 201, 211, 214, 215, 222
intoxilyzer test, 98, 209
inverse condemnation, 221
judgment not withstanding the evidence, 94
kidney dialysis, 151
land planning, 213
landlord/tenant, 7
lead contamination, 143
legal malpractice, 88, 184
legal sufficiency, 79, 155, 194, 202
lineup, 183, 250
lost earnings, 75, 200
lupus, 22
malpractice, 13, 22, 23, 25, 26, 42, 88, 95, 96, 102, 151, 171, 184, 192, 207, 216, 219
manslaughter, 53, 118, 141
manufacturer, 40, 46, 67, 185
maritime, 35, 142
market value, 254
mechanical engineer, 167
medicaid, 227
medical malpractice, 13, 22, 23, 25, 26, 42, 88, 95, 96, 102, 151, 171, 192, 207, 216, 219
medical negligence, 216, 224
medical standards, 22, 96
medicine, 185
memory, 198
mental anguish, 251
mesothelioma, 185

Munchausen, 191
murder, 8, 11, 17, 52, 64, 72, 77, 89, 104, 105, 109, 115, 127, 134, 145, 148-150, 162, 183, 188, 191, 196, 199, 226, 228, 244, 255
naphtha, 35
narcotics, 1, 28, 61, 65, 141
negligence, 22, 26, 83, 87, 99, 130, 151, 157, 193, 216, 224
nephrologist, 151
nerve injury, 49
no-evidence point of error, 32, 119, 231
nursing standards, 96, 216
obscenity, 29
occupational disease, 201, 222
official immunity defense, 34
oil and gas lease, 254
oil company, 159, 177
oil well, 20
ophthalmologist, 12
organized crime, 218
orthopedic surgeon, 212
orthoptist, 12
OSHA, 133
pain and suffering, 241
pancreatitis, 207
parental rights, 27, 43, 47, 140
pathologist, 79, 105, 145, 150, 253
pedophile, 27
personal injury, 9, 40, 83, 120, 126, 136, 175, 190, 240
pesticides, 146
petrochemical plant, 153
photographic evidence, 49
physician, 90, 96, 120
pipeline, 59, 154
pistol, 117, 172
plant scientist, 101
plumbing, 214
pneumonia, 35
podiatrist, 26
polygraph, 181
pornography, 195
post litem motam rule, 82, 239
premises liability, 212
probate, 4
products liability, 32, 46, 66, 67, 76, 94, 157, 167, 187, 204
profiling, 129
psychiatrist, 112, 148, 165, 182, 224
psychologist, 6, 121, 128, 162, 188, 196, 199, 247
pulmonary disease, 222
questioned documents, 62
Radar, 170
radial saw, 204
railroad, 33, 113, 133, 158, 173
ranch, 55
random match probability, 104
rapid acceleration, 167
real estate, 30, 55, 251
reckless injury, 117
recovered memory, 198
report, 39, 95
retrograde extrapolation, 147
robbery, 8, 58, 69, 124
safety expert, 126, 133
sanity, 148
seat belt, 79
securities fraud, 51
sentence, 71, 104, 194
sexual assault, 5, 6, 19, 21, 24, 73, 84, 86, 92, 97, 100, 109, 122, 128, 129, 163, 179-182, 186, 194, 208, 237
silicon gel, 157
social worker, 47, 97
soil shifting, 193
specific fit, 131, 140, 169
speeding, 170
standard of care, 151, 190, 211, 216, 224
statistics, 45
steroids, 207
straddle jack pallet mover, 130
stroke, 22

stylistics, 89, 156
substandard condition, 119
suicide, 77, 223
summary judgment, 7, 9, 22, 34, 38, 87, 88, 102, 110, 139, 143, 164, 219, 253
surgery, 49, 224
swindling, 174
take-nothing judgment, 26, 113, 114, 126
telephone harassment, 247
testamentary capacity, 4
tires, 46, 131
toxicology, 90, 118, 120, 142, 173, 238
tumor, 164
typesetting machine, 40
undue influence, 4
urinalysis, 106
vehicular accident, 31, 60, 66, 67, 76, 81, 99, 114, 131, 161, 167, 175, 203, 241, 242, 246, 253
veterinary, 110, 187
video surveillance, 252
vision, 12
vocational rehabilitation, 75, 230
work injury, 113, 133, 158
work safety rules, 240
workers' compensation, 10, 90, 201, 222
workout machine, 190
wrongful death, 88, 114, 185, 212, 225

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The text is revised and published in annual editions. Only the current edition should be quoted and cited.

20 *American Jurisprudence Proof of Facts, First Series*, 335-73 (1968). "Questioned documents bibliography," compiled by James F. Gruber.

Bryant. William Cullen Bryant, editor. *Library of World Poetry*. New York, Avenel Books, n. d. Pages 743-744.

Bryce 1998. Trevor Bryce. *The kingdom of the Hittites.* Oxford, NY, Clarendon Press, 1998.

At page 420: "Further, the texts which bear the signatures of particular scribes enable us to recognize distinctive features of the handwriting of these scribes, and perhaps more importantly distinctive features of handwriting in a particular period. This helps establish what is known as a *ductus* for the period, i.e. 'the manner of impressing cuneiform signs on tablets,' which in turn helps us to assign a number of texts which we cannot date on other grounds to the periods when they were composed, or in many cases when they were copied from earlier compositions."

Carroll 2001. Lewis Carroll. *The Complete Stories and Poems of Lewis Carroll.*

The poem "*Jabberwocky*" also shows that Carroll might have been an expert witness if he had lived in our day. His creative vocabulary (brillig, raths, tulgey, burgled, chortled, and all the rest) gives us the feeling we are familiar with what he says, though we never heard it before and could not quite say what it all means to us. Worse, we are too ashamed to be the only ones asking for an explanation. Expert terminology can be as frumious and manxome as any Carrollese; and, unlike the beamish boy, we do not have a vorpal sword to slay the whiffling beast who spews it. Even if we did, there is probably a law against such slaughter, however much provoked.

Conway 1959. James V. P. Conway. *Evidential documents.* Springfield, IL, Charles C. Thomas, 1959.

Dawson 1998. Greg A. Dawson and Brian Lindblom. "An evaluation of line quality in photocopied signatures." 38 *Science and Justice*, 189-94 (1998).

This research is especially enlightening since line quality is precisely the factor authors most cite as masked by a photocopy. Document examiners in four English-speaking countries participated. At page 193 it is reported: "The overall line quality characteristics of 69 of 72 (95.8%) were accurately assessed in the photocopies, representing 33 of 35 (94.3%) genuine and 36 of 37 (97.3%) non-genuine signatures." Then at page 193: "Failure to note each and every occurrence of a line quality characteristic did not impact on the overall evaluation as evidenced by an accuracy rate of 95.8%."

Enserink 2001. Martin Enserink. "Peer review and quality: A dubious connection?" 293 *Science*, 2187-2188 (Sept. 21, 2001).

EWI 2002. Expert Witness Institute. "Model form of expert's report." Sept. 2002, The Institute, London.

Faigman 1999. David Faigman. *Legal Alchemy: The Use and Misuse of Science in the Law.* W. H. Freeman and Company, 1999.

The professor seems to parrot the contentions of better known anti-expert experts. His notions of what makes science a science are as parroting and flawed as theirs. Surely more cynics will jump on this bandwagon of easy reputation as an iconoclast. The hard work of thorough research and critical thought is only needed if one is refuting sophistry.

Found 2000. Bryan Found. *Forensic handwriting examination system and expertise characterization seminar.* Presented at Conference of National Association of Document Examiners, October 2000, Albuquerque, NM.
Found 1995. Bryan Found and Doug Rogers. "Contemporary issues in forensic handwriting examination. A discussion of key issues in the wake of the Starzecpyzel decision." 8 *Journal of Forensic Document Examination*, 1-31 (Fall 1995).

On page 5 the authors note two points re the claim that experience produces expertise:

"1. No evidence has been provided that 'experience' from doing forensic casework increases the examiner's ability to differentiate between class and individual characteristics.

"2. No evidence has been provided that 'experience' increases the validity of findings."

Testing the theory, Dr. Found found it wanting.

Gruber 1968. James F. Gruber. "Questioned documents bibliography." 20 *American Jurisprudence Proof of Facts, First Series*, 335-73 (1968).
Hansen 2000. Mark Hansen. "Expertise to go. In a hurry? Then order your forensic expert witness credentials...." 86 *American Bar Association Journal,* 44-52 (Feb. 2000).
Harrison 1981. Wilson R. Harrison. *Suspect documents; their scientific examination*. Chicago, Nelson-Hall Publishers, 1981.
Hilton 1982. Ordway Hilton. *Scientific examination. of questioned documents. Revised edition*. New York, Elsevier, 1982.
Hilton 1952. Ordway Hilton. "Can the forger be identified from his handwriting?" 43 *Journal of Criminal Law, Criminology and Police Science*, 547-55 (Nov.-Dec. 1952).
Hung 1995. P. S. Hung and Sze Chung Leung. "Some observations on the morphology of a ballpoint pen stroke. Understanding the operation of writing instruments and the ink strokes generated by them." 1 *International Journal of Forensic Document Examiners*, 18-31 (Jan.-March 1995).
Imwinkelried 1988. Edward J. Imwinkelried. "Bases of expert testimony: the syllogistic structure of scientific testimony." 67 *North Carolina Law Review*, 1-27 (Nov. 1988).
Kam 1994. Moshe Kam. Joseph Wetstein. Robert Conn. "Proficiency of professional document examiners in writer identification." 39 *Journal of Forensic Sciences*, 5-14 (January 1994).

A handful of FBI handwriting experts were favorably compared to non-expert graduate students. All that was proved was that at least one handful of FBI experts can outperform at least one handful of non-expert graduate students. Professor Kam has made more noble efforts in that direction since. The authors respectfully submit that if 1,000 FBI experts do extremely better than 1,000 non-experts, we still do not know if there is any objective validity to their performance or what the 1,000 and first FBI expert would have done on the same test, much less what the local non-FBI expert for this case would have done. To say otherwise is equivalent to saying that 80% of seniors in a particular school scored passing grades on their final exams to graduate, therefore one can have an 80% confidence level in any given senior. All that we know is that we do not know whether any given senior passed or failed. Thus, in any rate-of-error study of any expertise, we know only that a certain number of unknown experts did passably well and another certain number of other unknown experts did passably poor. The study tells us nothing about the expert before us, unless such expert was included in the study and we can look at such expert's work and score from the study.

Leventon 1994. Melissa Leventon, *et al*. *The mystery of the Dead Sea Scrolls.* M. H. de Young Memorial Museum, The Fine Arts Museums of San Francisco, 26 February-29 May 1994.
Man 2000. John Man. *Alpha Beta: How 26 letters shaped the Western world*. New York, John Wiley & Sons, 2000.

At pages 229-230 he relates that 190 surviving ostraca (broken pieces of pottery used as we use

note paper) were cast as votes to exile Themistocles but that "only 14 hands can be identified." Rather than a matter of stuffing the ballot box, it might have been that less than ten percent could write and so served those who could not.

Matley 1992. Marcel B. Matley. *Studies in questioned documents, Number Seven:* "Reliability testing of expert handwriting opinions." San Francisco, CA, Handwriting Services of California, 1992.

Ten methods of reliability testing are given, each of which can be used as a format for cross-examining the expert.

Matley 1997. Marcel B. Matley. "Forensic handwriting identification: Is it legally a science? A review of court cases which hold handwriting examination to be a science." 3 *International Journal of Forensic Document Examiners*, 105-113 (April-June 1997).

Matley 1998. Marcel B. Matley. "The making of one's own exemplars; the *post litem motam* rule as illustrated by California." 21 *National Association of Document Examiners Journal*, 1-5 (Spring 1998).

Matley 1999. Marcel B. Matley. "Case citations relating to court ordered exemplars and disguise of same as contempt of court and obstruction of justice; a discussion and interpretation." 5 *International Journal of Forensic Document Examiners,* 146-74 (Jan.-Dec., 1999).

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Mendel 1947. Alfred O. Mendel. *Personality in handwriting; a handbook of American graphology.* New York, Stephen Daye Press, 1947.

Odergren 1996. T. Odergren, *et al.* "Impaired sensory-motor integration during grasping in writer's cramp." 119 *Brain*, 569-583 (1996).

Osborn 1929. Albert S. Osborn. *Questioned documents. Second edition.* Chicago, Nelson-Hall, 1978. (Reprint of 1929 ed., Montclair, NJ, Patterson Smith Publishers.)

QDE Index; a guide to periodical articles in English on document examination, handwriting expertise and expert testimony. 2003 edition. Compiled by Marcel B. Matley. San Francisco, A & M Matley, 2003.

Ramsey 1996. Sandra L. Ramsey. "The effects of computers on forensic document examiners." 2 *International Journal of Forensic Document Examiners*, 187-91 (July-Sept. 1996).

Risinger 1989. D. Michael Risinger, Mark P. Denbeaux and Michael J. Saks. "Exorcism of ignorance as a proxy for rational knowledge; the lessons of handwriting identification expertise." 137 *University of Pennsylvania Law Review*, 731-92 (Jan. 1989).

RCMP 1990. Royal Canadian Mounted Police. *The R.C.M.P. questioned documents bibliography. Second edition.* Montreal, Canada, RCMP Forensic Lab., 1990.

Roman 1952. Klara G. Roman. *Handwriting; a key to personality.* Pantheon Books, New York, 1952.

Saudek 1926. Robert Saudek. *The psychology of handwriting.* London, George Allen & Unwin, 1926. Reprint: Sacramento, CA, Books for Professionals, 1978.

Saudek 1929. Robert Saudek. *Experiments with handwriting.* London, George Allen & Unwin, 1929. Reprint: Sacramento, CA, Books for Professionals, 1978.

The factors accounting for individuality are given on page 235:

"The twelve factors responsible for the formation of our letters are:

1. The mechanical means (pen, ink, pencil, paper).
2. The degree of graphic maturity.
3. The degree of speed of the act of writing (actual intensity of the stroke-, letter-, word- or sentence-impulse).

4. The school-copy from which we first learned to write.
5. The nationality of the writer, and also the national environment in which he is at present living, or has previously lived for any length of time.
6. The individual degree of visual impressionability.
7. Power of graphic expression (conditioned by the visual memory and manual dexterity).
8. The degree of the writer's vanity, affectation and desire to imitate others on the one hand or his naturalness and unaffectedness on the other.
9. Degree of cultivation, knowledge of foreign languages, foreign styles of handwriting, and foreign countries.
10. The acute physiological condition of the writer.
11. Chronic physical impediments.
12. The circumstance whether the letter in question stands alone or at the beginning or the end of a word (that is, whether an adjacent letter stands to the right or the left of it or on either side), and whether the final direction of the movement of the preceding letter and the beginning of the movement of the letter just written, as well as the final direction of the letter just written and the initial direction of the following letter, correspond.

(*In this group of factors psycho-pathological factors have not been taken into consideration.*)"

The list is not represented to be exhaustive, and the expert may be able to name others operative in a particular situation. See the entry for *Schulenberger*.

Saudek 1933. Robert Saudek. *Anonymous letters; a study in crime and handwriting.* London, Methuen & Co., 1933. 1976 reprint by AMS Press, New York.

Schulenberger. William A. Schulenberger. *Anonymous letters: Some principles affecting the search for and identification of writers of threatening or offensive letters.* No date. Secret Service Course on Questioned Documents.

The author gives excellent simplifications of several highly technical passages from Saudek's *Experiments with Handwriting.* The paper may be the same as that published in *Identification News*, vol. 13, June 1963, pages 4-6.

Spencer 2004. Ronald D. Spencer, ed. *The expert versus the object; judging fakes and false attributions in the visual arts.* Oxford, UK, Oxford University Press, 2004. [Chapter 9: "Signature identification: From pen stroke to brush stroke." By Patricia Siegel.]

This is one example of the many that could be cited where use of handwriting expertise in the art market is discussed.

Starrs 1996. James E. Starrs. "Faking it! A monograph on dissimulation in the justice system." 30 *Scientific Sleuthing Review*, 1-5 (Spring 1996).

Wing 1983. Alan M. Wing, *et al*. "The consistency of cursive letter formation as a function of position in the word." 54 *Acta Psychologica*, 197-204 (1983).